

Rock Chips

Vol 47 No 3

The Deming Gem & Mineral Society, Inc.

March 2015

PRESIDENT'S MESSAGE HAPPY ST. PATRICK'S DAY

I would also like to thank Gail and Ken Hennig for the interesting presentation at the General Meeting. It was good to see such a good turnout, too. By the time this is published the roundup will be in progress or over. Thanks for everyone's hard work. It's a lot of work, but have fun.

In the process of getting the January Chips out and not knowing if we would have a Bulletin Editor, I was trying to get out the essentials for Roundup, we did not get January's Board minutes published, so it is in this issue. In an effort to get an issue of the Chips out this month the March Board minutes will not be published until next month. Now that we have an editor hopefully by April we will be back on track.

By the March General Meeting, on Saturday the 28th, at 2:00 p.m. which will be a potluck with a short meeting after, we should know the outcome of the Roundup.

It seems that we are forgetting about our new members at meeting time. I had some fairly new members say that they don't know about the door prizes and 50/50. I would like to take this time to explain. When you come to a meeting there are a couple of tables at the back of the room. One is for membership, where you can renew your membership or become a member or purchase t-shirts, name tags, patches, pins, hats, etc. The other is to sign in for attendance and door prizes. We have a 50/50 raffle drawing. Tickets are \$.50 a piece. On the attendance sign-in you pick a number and sign your name next to it. Two of these numbers are drawn for door prizes, one for just having your number drawn, the second for if you are wearing your name tag.

Barb

Deming Gem & Mineral Society, Inc. Board Meeting - January 7, 2015

The meeting was called to order at 2:00 p.m. by Barbara Staff, President.

Board Members present: Barbara Staff, Shirley Krasinski, Marilyn Page, Linda Edwards, Ben Staff, Art Krasinski, and Carlos Chavez.

Members present were John Edwards and Joe Morone.

Carlos Chavez was sworn in as a 2 Year Director.

TREASURER'S REPORT: Ben noted that he had just received all the information and paperwork from the previous treasurer and will need time to go over it.

SECRETARY'S REPORT: Linda had nothing to report. She did mention that she is unable to make the bags for the Round-Up grab-bag. Shirley took the materials back.

UNFINISHED BUSINESS: Discussion regarding changing the day and/or time of the General Member's meeting was had. A number of pros and cons for changing the meeting to the same day, Thursday, at 2 PM, changing it to Saturday, 2 PM, and leaving it the same at 6 PM on Thursday were heard. The decision to change the time and day of the meeting will be tabled until it is brought up at the General Meeting.

SUNSHINE: Bill Haworth, longtime member, owner of Red Roof Rock Shop, and one of the members behind the club getting the clubhouse passed away December 24th. Bill Wellons also passed away December 24th.

SHOP: Joe discussed various items that have been replaced and those that still need replacement. Barbara discussed working from a budget and Joe

Continued page 2

Board Meeting ...continued

said that once he has a figure for the budget, he will adhere to it. Discussion was had and an amount was agreed upon. Linda asked why there is not a Board member representing the Shop. Barbara explained that it was not established in the by-laws.

BY-LAWS: Board member were given a copy of the by-laws and asked that the by-laws be read and changes members would like to see made noted.

The meeting was adjourned at 3:15 p.m.

Respectfully submitted by Linda Edwards, Secretary, 2015.

Calendar of Events

Mar 9Roundup Setup, meet at clubhouse 9 a.m.

March 9th dealer packet stuffing, 10 a.m. in building #2 at fairgrounds.

March 10th tables need set up in building #1 & #2 at fairgrounds

March 12-15 .Roundup

March 17 ..Roundup Tear down and Critique

March 28 ..General Meeting – Saturday, 2:00 p.m. (...note change in day and time)

April 11....Earring Class – Saturday, 9 a.m. – 12 p.m.

<http://www.thedgms.com/> is under new management and so that means construction delays!

If you experience 404 errors it just means I messed something up and need to fix it.

Please! Any suggestions send them along to the editor or to Barbara via the E-mail links here or at the next meeting!

January sunshine

A sympathy card was sent to Jane Wellons family for the loss of her husband, Bill.

A sympathy card was sent to Geneva Haworth for the loss of her husband, Bill.

A get-well card was sent to Monika Anderson . She was in the hospital.

February Sunshine

A get-well card was sent to Pamm Reynolds.

If you know someone who needs a little sunshine call Barbara -575-494-6238

Shop Hours

Monday 9 a.m. - 12 p.m.

Wednesday 12 – 3 p.m.

Friday 9 a.m. – 12 p.m. & 12 - 3 p.m.

Saturday – 9 a.m. – 12 p.m.



March 12-15th 2015

Fluorescent rocks from NM and SE Arizona

Gail & Ken Hening at Thursday's 26th, February meeting on fluorescent rocks from NM and SE Arizona was informative and entertaining. It is good to hear the word "we need more chairs", and discuss old areas of hunting we had in common. They also brought local samples so people could see how a UV lamp can cause a dull piece of stone to glow with an amazing array of vibrant colors - in sharp contrast to the color of the rocks under conditions of normal illumination.

Fluorescence in More Detail

Fluorescence in minerals occurs when a specimen is illuminated with specific wavelengths of light. Ultraviolet light, x-rays and cathode rays are the typical types of light that trigger fluorescence. These types of light have the ability to excite susceptible electrons within the atomic structure of the mineral. These excited electrons temporarily jump up to a higher orbital within the mineral's atomic structure. When those electrons fall back down to their original orbital a small amount of energy is released in the form of light. This release of light is known as fluorescence.

The wavelength of light released from a fluorescent mineral is often distinctly different from the wavelength of the incident light. This produces a visible change in the color of the mineral. This "glow" continues as long as the mineral is illuminated with light of the proper wavelength.

How Many Minerals Fluoresce in UV Light?

Most minerals do not fluoresce. Only about 15% of minerals have this ability and every specimen of those minerals does not fluoresce. [2] Fluorescence usually occurs when specific impurities known as "activators" are present within the mineral. These activators are typically cations of metals such as: tungsten, molybdenum, lead, boron, titanium, manganese, uranium and chromium. Rare earth elements such as europium, terbium, dysprosium, and yttrium are also known to contribute to the fluorescence phenomenon. Fluorescence can also be caused by crystal structural defects or organic impurities.

Most minerals fluoresce a single color. Other minerals have multiple colors of fluorescence. Calcite has been known to fluoresce red, blue, white, pink, green and orange. Some minerals are known to exhibit multiple colors of fluorescence in a single specimen. These can be banded minerals that exhibit several stages of growth from parent solutions with changing compositions. Many minerals fluoresce one color under short-wave UV light

and another color under long-wave UV light.

Fluorite: The Original "Fluorescent Mineral"

One of the first people to observe fluorescence in minerals was George Gabriel Stokes in 1852. He noted the ability of fluorite to produce a blue glow when illuminated with invisible light "beyond the violet end of the spectrum". He called this phenomenon "fluorescence" after the mineral fluorite. The name has gained wide acceptance in mineralogy, gemology, biology, optics, commercial lighting and many other fields.

Fluorescence is one of several luminescence properties that a mineral might exhibit. Other luminescence properties include:

PHOSPHORESCENCE

In fluorescence, electrons excited by incoming photons jump up to a higher energy level and remain there for a tiny fraction of a second before falling back to the ground state and emitting fluorescent light. In phosphorescence the electrons remain in the excited state orbital for a greater amount of time before falling. Minerals with fluorescence stop glowing when the light source is turned off. Minerals with phosphorescence can glow for a brief time after the light source is turned off. Minerals that are sometimes phosphorescent include: calcite, celestine, colemanite, fluorite, sphalerite, and willemite.

THERMOLUMINESCENCE

Thermoluminescence is the ability of a mineral to emit a small amount of light upon being heated. This heating might be to temperatures as low as 50 to 200 degrees Celsius - much lower than the temperature of incandescence. Apatite, calcite, chlorophane, fluorite, lepidolite, scapolite and some feldspars are occasionally thermoluminescent.

TRIBOLUMINESCENCE

Some minerals will emit light when mechanical energy is applied to them. These minerals glow when they are struck, crushed, scratched or broken. This light is a result of bonds being broken within the mineral structure. The amount of light emitted is very small and careful observation in the dark is often required. Minerals that sometimes display triboluminescence include: amblygonite, calcite, fluorite, lepidolite, pectolite, quartz, sphalerite, and some feldspars.

Continued page 4...

Lamps for Viewing Fluorescent Minerals

The lamps used to locate and study fluorescent minerals are very different from the ultraviolet lamps (called "black lights") sold in novelty stores. The novelty store lamps are not suitable for mineral studies for two reasons: 1) they emit long-wave ultraviolet light (most fluorescent minerals respond to short-wave ultraviolet); and, 2) they emit a significant amount of visible light which interferes with accurate observation, but is not a problem for novelty use.

The scientific-grade lamps used for mineral studies have a filter that blocks most of the visible light that will interfere with observation. These filters are very expensive and are partly responsible for the significantly higher price of scientific lamps.

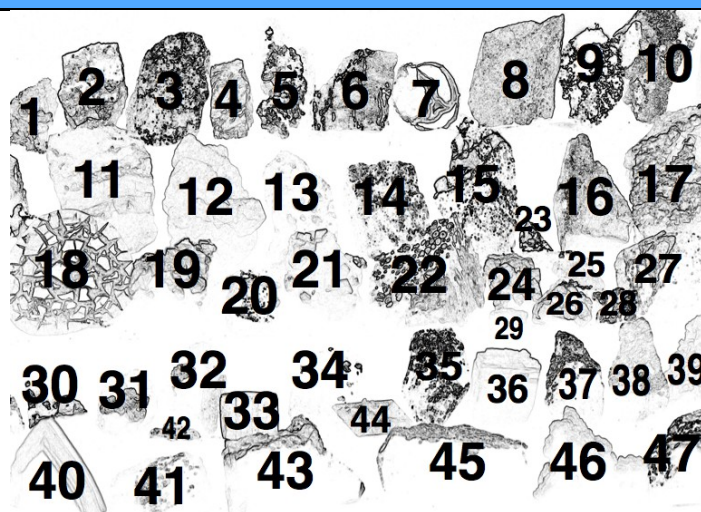
UV Lamp Safety

Read the safety instructions provided with your UV lamp prior to use.

Ultraviolet light is present in sunlight and is the type of light that causes sunburn. Avoid prolonged exposure of skin to direct UV light. Cover your skin with long sleeve clothing and gloves. Avoid shining the lamp into the eyes of a person or pet. Protect eyes with UV rated safety goggles or glasses. Looking into the lamp can cause serious eye injury. This was stressed by both Gail and Ken from personal experience!



The wonderful photograph above shows a collection of fluorescent minerals. It was created by Dr. Hannes Grobe and is part of the Wikimedia Commons collection. The photo is used here under a Creative Commons license.



1. Cerussite, Barite - Morocco; 2. Scapolite - Canada;
3. Hardystonite (blue), Calcite (red), Willemite (green) - New Jersey; 4. Dolomite - Sweden; 5. Adamite - Mexico; 6. Scheelite - unknown locality; 7. Agate - Utah; 8. Tremolite - New York; 9. Willemite - New Jersey; 10. Dolomite - Sweden; 11. Fluorite, Calcite - Switzerland; 12. Calcite - Romania; 13. Rhyolite - unknown locality; 14. Dolomite - Sweden; 15. Willemite (green), Calcite (red), Franklinite, Rhodonite - New Jersey; 16. Eucryptite - Zimbabwe; 17. Calcite - Germany; 18. Calcite in a Septarian nodule - Utah; 19. Fluorite - England; 20. Calcite - Sweden; 21. Calcite, Dolomite - Sardinia; 22. Dripstones - Turkey; 23. Scheelite - unknown locality; 24. Aragonite - Sicily; 25. Benitoite - California; 26. Quartz Geode - Germany; 27. Dolomite, Iron Ore - Sweden; 28. Unknown; 29. Synthetic Corundum; 30. Powellite - India; 31. Hyalite (opal) - Hungary; 32. Vlasovite in Eudyalite - Canada; 33. Spar Calcite - Mexico; 34. Manganocalcite? - Sweden; 35. Clinohydrate, Hardystonite, Willemite, Calcite - New Jersey; 36. Calcite - Switzerland; 37. Apatite, Diopside - United States; 38. Dolostone - Sweden; 39. Fluorite - England; 40. Manganocalcite - Peru; 41. Hemimorphite with Sphalerite in gangue - Germany; 42. Unknown; 43. Unknown; 44. Unknown; 45. Dolomite - Sweden; 46. Chalcedony - unknown locality; 47. Willemite, Calcite - New Jersey.

~Editor~

Deming Gem and Mineral Society, Inc. General Meeting – February 26, 2015

Barbara Staff, President called the meeting to order at 6:00 p.m. She then led the members in the Pledge of Allegiance.

SECRETARY'S REPORT: There was no report or correspondence to mention. The secretary noted that the General Meeting and Board Meeting minutes were printed in the Rock Chips. A correction to the Board minutes was noted by Joe Morone. It should have read: Mineral oil was purchased for \$891.00, split between shop and roundup. Minutes were approved as corrected.

TREASURER'S REPORT: Treasurer's report was approved and posted on the bulletin board.

COMMITTEE REPORTS:

FIELD TRIPS: A field trip is planned Sunday, March 1. Meet at the clubhouse at 9 a.m. The group will travel to Corralitos, just west of Las Cruces.

CLAIMS: Ben stated all is fine with Claims.

MEMBERSHIP: Monika stated one new member Christina Krol. Anyone not paying their dues by March 31 will be dropped from the membership.

SUNSHINE: Barbara send a card to Pamm Reynolds

LIBRARIAN: Sylvia had nothing new to report.

CHIPS: Scott had nothing new to report.

SHOP: Joe stated Shop hours are Monday 9 to 12; Wednesday, 12 to 3; Friday 9 to 12 and 12 to 3; Saturday 9 to 12.

ROUND-UP: There will be a meeting on Thursday March 5, at 2 p.m. The set-up will be on Monday March 9, at 10:00. Marilyn showed the newly printed club shirts for the Round-Up. Starting this evening and up until the Round-Up, members can purchase shirts at \$10 each. Once the event begins, the prices will go up.

UNFINISHED BUSINESS:

Joe Morone moved that the day and time of the

general meeting be moved to the 4th Saturday of the month at 2:00 p.m. Motion was seconded. After discussion motion was approved.

NEW BUSINESS:

We need 3 people to volunteer to read over the applications for Scholarships. Elaine Angstman, Betty Merrill and Maria Ehlers indicated they will be happy to be involved with this process.

Need Field Trip Chairperson, Publicity, Historian, Parliamentarian and Social chair. Also need people to teach classes.

After Roundup, we will need to establish a By-Laws committee to overhaul the By-Laws we currently have.

DRAWINGS: Carolyn Abbey won door prize and 50/50.

Our apologies as we missed getting the name of who won the name badge drawing.

REFRESHMENTS: Refreshments were enjoyed by all. Thanks to all Barb Staff and Monika Anderson

ADJOURNMENT: The meeting was adjourned.

PROGRAM: The members enjoyed a very interesting program on fluorescent minerals. The DGMS certainly thanks Gail and Ken Hennig the for their presentation.

Respectfully submitted by Linda Edwards, Secretary.



THE DEMING GEM & MINERAL SOCIETY, INC.

P.O. BOX 1459, DEMING, N.M. 88031-459

FOUNDED - JANUARY 1965

DUES ARE DUE & PAYABLE ON DECEMBER 1st EACH YEAR

Membership Dues: \$15.00 per person for Adult Members

Junior Memberships: \$2.00 per person (up to 18 years of age) or \$25.00 per family

All meetings are held at the Deming Gem & Mineral Society, Inc. building

4200 Raymond Reed Blvd., Deming, NM -- Clubhouse phone: 575- 546-2554

OFFICERS

President	Barbara Staff	724-712-6353
Vice President	Ken Sholer	575-644-0886
Secretary	Linda Edwards	804-695-4884
Treasurer	Benjamin Staff.....	724-256-2674
Bulletin Editor	Scott Ehlers	575-544-2826
Roundup Chair	Marilyn Page	575-544-9019
1 Yr. Director	Art Krasinski.....	575-494-5971
2 Yr. Director	Carlos Chevez	931-205-0909
Past President		
Pro-Tem.....	Cindy Jordan	575-694-3598

CHAIRPERSONS

Field Trips Chair.....	Dennis Holmes.....	575-3137329
Shop	Joe Morone.....	937-206-2111
Claims	Paul Browning	575-644-6540
Custodian	Cindy Jordan	575-694-3598
Librarian	Sylvia Golden	505-717-7157
Membership.....	Monika Anderson	575-544-4655
Webmaster.....	Scott Ehlers.....	575-544-2826
Sunshine	Barbara Hamilton	575-544-8643
Photographer	All Club Members	
Refreshments	All Club members	
Reporters	All Club Members	
Historian		
Parliamentarian		
Social Chairperson .		
Publicity	Carol Duncan	

...OFFICIAL SHOW OF THE SOCIETY

Held every year on the second weekend (Thursday through Sunday) in March at the SW New Mexico Fairgrounds.

“ROCK CHIPS” is the official bulletin of the Society

Email: thedgms@gmail.com

OFFICIAL WEB SITE www.thedgms.com

Letters to the Editor

Any suggestions, ideas, criticisms?
Contact the DGMS Newsletter Editor
Scott Ehlers
at

DGMS-NEWS-EDITOR@Hughes.net

THE DEMING GEM and MINERAL SOCIETY, INC. an incorporated, non-profit organization shall be dedicated to the knowledge, advancement and enjoyment of the earth sciences and associated subjects. The Society's primary purpose is the dissemination and furtherance of knowledge of mineralogy, gem cutting and geology, and to stimulate interest in the development of these studies. It is composed of individuals who have chosen gems and the aforementioned studies as a major interest in their lives.