

Cedar Valley Gems

Cedar Valley Rocks & Minerals Society
Cedar Rapids, Iowa

CEDAR VALLEY GEMS

JUNE 2015

VOL. 41, ISSUE 6

Conklin Quarry Gives Up Fossils and Millerite

We had a great turnout. Our field trip on Sunday, May 17 to the Conklin Quarry in Coralville was enjoyed by 27 people. While the weather forecast was not very encouraging, with rain being expected for most of the day, it actually turned out to be very pleasant. There was no rain, although it was mostly cloudy, which resulted in almost ideal collecting conditions.

The usual fossils were found with a lot of the collectors looking for the elusive trilobites. Many trilobites were found along with the usual corals, spirifers, cephalopods, brachiopods, and other fossils. As is sometimes the case it seems like the best fossils are in the middle of a big block of rock making extracting difficult, but that is the challenge.



Our group also found some nice minerals that this particular quarry is known for, that being millerite. Some nice calcites were also found.

If you missed this trip don't worry. We will be lining up more field trips into this quarry

during the summer so check your emails for announcements.

Article by *Marv Houg*
President, CVRMS

CVRMS Scholarships: Thank-Yous Received

Dear Dale,

Thanks very much to you and CVRMS for your generous donation to the Cornell College Geology Department!

Our students learn so much from their time in the field, and these experiences are made substantially more affordable by your support. We faculty and our students can't thank you enough.



Best,
Rhawn Denniston
Professor of Geology
Chair, Department of Geology
Chair, Environmental Studies Program
Cornell College



Dear Cedar Valley Rocks & Minerals Society,

On behalf of the VAST Center, I want to thank you for your very generous donation.

We greatly appreciate your support, which in turn benefits the students and teachers in Eastern Iowa. The donation will provide materials for our earth science units. Thank you for supporting earth science, teachers, students and the VAST Center.

Kathy Schulz
Science Consultant

Reminder: Summer Club gatherings at area parks.

The next three Club gatherings will be evening picnics at three area parks as we have enjoyed in the past. We will have a variety of activities from lapidary to geode cracking to bingo. See the events column on page 3 for dates, times and location details.

CVRMS Board Meeting Minutes

Called by President Marv Houg at 7:15 p.m. at Marv & Sue's home on May 26, 2015.

Present: Marv Houg, Dale Stout, Ray Anderson, Dave Roush, Sharon Sonneleitner, and Jay Vavra

Auction: Estimated lots for the September auction are about 1,200. Sharon will send contracts to the consigners to help firm up the numbers.

Newsletter Editor: Dave Chase has submitted his resignation as editor effective after the June 2015 issue, due to an increase in workload at his job. It was noted that he has done an excellent job with the newsletter. Ray agreed to run for this elected position. A vote will be taken at the June picnic. Ray was authorized to get Microsoft Publisher. Sharon will check on the cost of having Allegra do the mailing. Jay volunteered to scan old newsletters, one year at a time. Sharon will contact Joy Cummings to get some old issues.

Correspondence: Marv read a thank-you from the VAST center, and Dale read one from Cornell for the money we donated for scholarships. Sharon will send them to Dave for the newsletter.

Classes: Ray reported Mark Ginsberg is excited to host the group at his store in Iowa City and show us his 3-D printer/scanner among other things. There are stairs to get to all levels of his store. Ray will arrange a Saturday morning date at 9:00. Following the event at Mark's store, the group will

also tour Iowa Hall. Ray has received confirmation from Mark Anderson that he will set up a flint-knapping class.

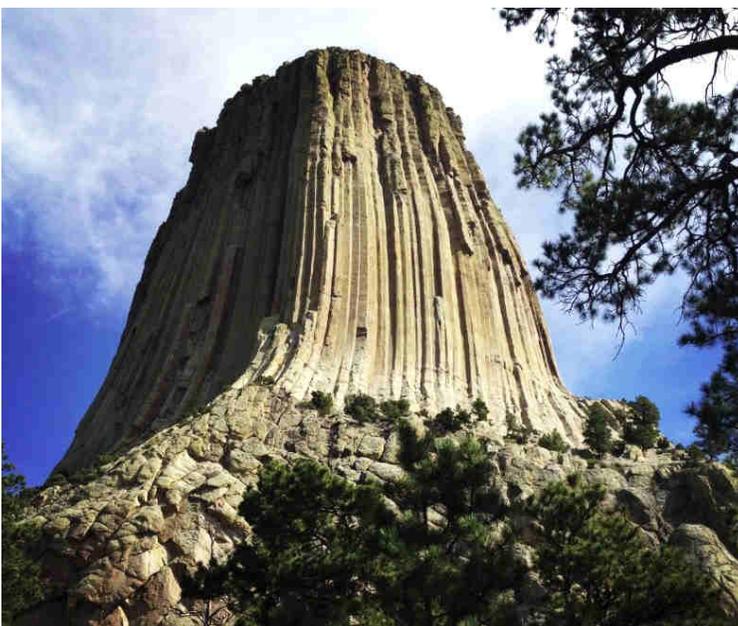
Field Trips: The following field trip ideas will be investigated: Phil Burgess in Prairie du Chien, Keota quarry (Marv will talk to Deb at River Products), the Black Hills (check with ZRS, Paul Stults, Dan that Marv knows, South Dakota state geologist and another person Ray knows, and Ithiel and Janice for possible hunting places), Arkansas diamond and quartz mines. Glen Rocca called during the meeting to let us know he is setting up a joint trip with the Waterloo club to Gary Jacob's for geodes for June 20th.

Show: Motion was made by Dale and seconded by Ray to propose the theme of "Petrified Wood and Fossil Plants" for the 2016 show. Dealers to replace ZRS and Burns Gems will be discussed next Board meeting.

2019 Midwest Federation and American Federation Show: There was some discussion regarding hosting the show. Marv will check on what has been done for recent shows and the possibility will be discussed again after that.

Adjourned at 9:30 p.m.

Respectfully submitted,
Sharon Sonneleitner
Acting Secretary



Devils Tower Calls

While Devils Tower is a long way from Iowa it is a geologic feature that you shouldn't miss if your travels take you to Wyoming. Such was the case two years ago as we made our way back from Helena, Montana. The tower can be seen for miles nestled within beautiful landscapes of hills and open meadows on the approach. Try to go off season to avoid long lines of people.

The park itself is very clean and filled with western wildlife. An asphalt foot pathway surrounds the base of the tower and offers great views like this. Geologic interpretive signs can be found along the path and in the information center explaining how this soaring structure was formed. I don't know if rock collecting is permitted within the park but you can take any amount of photos you wish—you may even see rock climbers. DC

May Club Meeting Minutes

Minutes of May 19 Regular Club Meeting

The May meeting was called to order at 7:15 p.m. by President Marv Houg. We welcomed new member Alexandra Burns. The published Secretary's minutes were corrected to add the missing last name of Jim Feickert. A Motion was made by Julie Whitlatch and seconded by Alexandra to accept the minutes as corrected. Carried with all in favor. Treasurer Dale Stout reported \$9503.13 in checking. Motion was made by Tom Whitlatch and seconded by Jay Vavra to approve the report. Carried with all in favor.

The meeting broke for Ray Anderson's program, "the Rocks, Minerals and Fossils of the Grotto of the Redemption," which is promoted as the largest man-made grotto in the world. Following refreshments, the meeting reconvened.

New Business: It was announced the Board is working on setting up classes from the following list: wire wrap, lapidary, flint knapping, fossil cleaning, cabbing, start-up class with identification of equipment, etc., polishing stones, rock identification. Silver-smithing, carving, slabbing, and chemicals for working with rocks were added to the list. Ray will check with Mark Anderson about offering a flint knapping class to start.

Summer Picnics: Summer picnics will be held June 16 at Noelridge Duck Pond Pavilion with lapidary equipment to try out, July 21 at Squaw Creek with geode cracking, and August 18 at Morgan Creek Meadowlark Shelter with bingo. Bring a dish to pass, drinks and table service. Eat at 6:30.

Field Trips: Marv reported 27 people attended the Conklin Quarry field trip. Ray is arranging a trip to Mark Ginsberg Jewelry in Iowa City for a presentation which will include a demonstration of his 3-D printer. Glen Rocca will arrange a joint trip with the Waterloo club to Gary Jacob's for geodes.

Show: Petrified wood has been suggested as the theme for the 2016 show. Members were invited to suggest other ideas. Julie asked if we were considering hosting the 2019 MWF and AFMS show. It was agreed we would consider it.

Motion was made by Dale and seconded by Delores Slade to adjourn. Adjourned at 8:40 p.m.

Respectfully submitted,
Sharon Sonnleitner
Acting Secretary

CVRMS SUMMER PICNICS

Summer meetings are potlucks as noted below. We start eating at **6:30 pm sharp!** Bring a dish to share and your own drinks and tableware. Check the website for any last minute updates.

June 16th – Noelridge Park, Cedar Rapids, IA – Lagoon Pavilion, Noelridge Park – on Council Street between 42nd & Collins Rd. Members will bring their lapidary equipment for people to try. Bring something to polish or use a sample supplied. Friends are welcome.

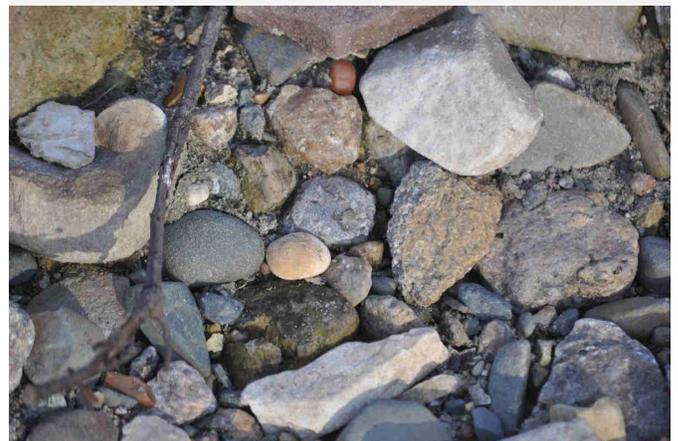
July 21th – Squaw Creek Park, Marion, IA – Meadowlark Shelter

Meadowlark is one of the bigger shelters in the park. From Cedar Rapids, take Hwy 100 (Marion By-pass) towards Hwy 13. It's the last right turn before Hwy 13 – Banner Drive. Once in the park, follow the signs. There will be several geode crackers at the picnic, so bring geodes for cracking. Extra geodes will be available, if you don't have any.

August 18th – Morgan Creek, Cedar Rapids, IA – Pavilion

Morgan Creek is located on the western edge of Cedar Rapids on Worcester Road. **From Hwy. 30** (from the west, south and east) - take the 80th Street Exit, north to 16th Ave., then east on 16th to Stoney Point Road; north on Stoney Point Road to Worcester Road; west on Worcester Road, the park is on your left. **From north Cedar Rapids** - take Hwy 94 to Stoney Point Road; south on Stoney Point Road to Worcester Road; right (west) on Worcester Road, the park is on your left.

The August picnic will be Bingo night for prizes. The club provides some nice rock prizes, so come and have a lot of fun playing bingo. This is one of the most fun events of all, so our new members are highly encouraged to attend.



Field Trip: Geode Dig June 20 with BHGMS

We will have a geode dig on Saturday June 20th, 2015. This will be a joint field trip with the BHGMS and CVRMS Rock Clubs to the Gary Jacob's geode mine, Hamilton, Illinois. Gary has opened a new location before you go across the creek as well as the old dig site. There is plenty of room and you may stay all day. Keep the weather in mind; if it is raining hard we will not go.

The BHGMS Club will meet the CVRMS club 6:50 a.m. for a short break at the south bound Rest Stop just south of Cedar Rapids on I-380. We will next meet at the Chaney Creek Boat Access and then head to Gary's place, which is five minutes away. Hopefully it will be a nice day, but dress for success. Bring plenty of water. Don't be late because we will not wait.

- When: Saturday June 20th, 2015
- Time: 9:00 AM - We want to be at Gary's place at 9:00 so be early to the Chaney Creek meeting spot.
- Meet: Chaney Creek Boat Access, HWY 96 North, Hamilton, IL
- Take Hwy 27 / I-380 South
- NOTE: 6:50 A.M. We will Meet the Cedar Rapids Club at the south bound Rest Stop just South of Cedar Rapids
- Follow Hwy 218 into Keokuk, IA. Hwy 218 changes into Hwy 136 about 7 blocks before Going across the Mississippi River into Hamilton Illinois.
- Take Hwy 136 across the river.
- Once across the river take Hwy 96 North at the junction of Hwy 136 East and 96 North.
- Basically stay to your left as the road parallels the river.
- About 1/2 to 1 mile ahead on your left will be the Chaney Creek Boat Access (large asphalt parking lot.)
- We will meet in the parking lot. This is a large parking lot and is the same place that they meet in for Geode Fest.

Gary Jacob's Geode Shop and Mine , 823 East County Rd 1220 , Hamilton, IL 62341, (217) 847-3509.



Direct route to Jacobs:

Take Hwy 136 East to Hwy 96 South (towards Quincy); Turn right on to Hwy 96 south; Turn right (West) on 823 East County Rd 1220; the entrance to Jacobs will be about 1000 feet down the road on your left.

What you will find: geodes size from golf ball to softball size typical and larger have been dug. The cost is \$20.00 per 5 gallon bucket. Bring these tools: picks, hoes, shovels, hammers & sledge hammer, chisels etc.

Safety equipment: highly recommended - safety glasses, gloves with grip, common sense. Bring your own food and plenty of water to drink. There are no restroom facilities so plan accordingly, but the dig site is only about 5 minutes away from where we meet so you can always head into town.

Some of the area will be loosened, it is dirt, clay and soft shale. Dig sites are on each side of the creek; the old site across the creek is harder shale and limestone; the new site is soft clay, shale, and limestone easily dug with a pick, shovel and hoe.

This will be a joint trip with the BHGMS and CVRMS Rock Clubs working together and you will need to be up to date with your club dues/membership with your respective club. You can pay your dues when on site.

Last but not least – this is not required, but would be appreciated: if you are going, please email me back or call me so I can keep track of participants and plan accordingly – PLEASE RSVP.

Make sure you include your cell and home phone numbers in your RSVP in case we need to make last minute calls and changes or need to contact you while in transit.

Contact Information: Glen Rocca, Black Hawk Gem & Mineral Society. Phone: 319-269-8168

Spotlight Gemstone: Moonstone



Moonstone's delicate beauty and its long-established heritage make it perhaps the most familiar gem-quality member of the feldspar group. Feldspars are the most widespread minerals in the earth's crust, as well as some of the most diverse. You can pick up a rock anywhere in the world, and you'll probably find that it contains a mineral or two from the feldspar group.

Moonstone is a variety of the feldspar-group mineral orthoclase. It's composed of two feldspar minerals, orthoclase and albite. At first, the two minerals are intermingled. Then, as the newly formed mineral cools, the intergrown orthoclase and albite separate into stacked, alternating layers.

When light falls between these thin, flat layers, it scatters in many directions, producing the phenomenon called adularescence. Adularescence is the light that appears to billow across a gemstone, giving its surface a glowing appearance. Perhaps the most captivating aspect of adularescence is its appearance of motion. The misty light seems to roll across the gem's surface as you change the viewing angle.

Other feldspar minerals can also show adularescence. One is a labradorite feldspar found mainly in Labrador, Canada. Another labradorite—found in Madagascar—has a multicolored adularescence over a light bodycolor. It's known in the trade as rainbow moonstone, despite the fact that it's actually a variety of labradorite rather than orthoclase.

Moonstone Facts

Mineral: Feldspar

Chemistry: $KAlSi_3O_8$

Color: Colorless to White, Gray, Green, Peach, Brown

Refractive index: 1.518 to 1.526

Birefringence: 0.05 to 0.008

Specific gravity: 2.58

Mohs Hardness: 6.0 to 6.5

Edited from the Gem Institute of America website.

EVENTS

June 6-7: Springfield, MO - Annual show; hosted by OZARK MOUNTAIN GEM & MINERAL SOCIETY, Outdoors at Missouri Institute of Natural Science; 2327 W Farm Road #190; Sat. 10:00 a.m.-5:30 p.m., Sun. 10:00 a.m.-4:00 p.m.; FREE ROCK SWAP & GEM FAIR; Rocks, Fossils, Minerals, Rough, Slabs, Cabs, AUCTION Sat 5:30; Email: omgms.57@gmail.com; Phone 417-882-8449; contact Larry Lillich, (417) 882-8449; e-mail: omgms.57@gmail.com

June 6-7: Viroqua, WI Annual show; Coulee Rock Club, Junior High School Gymnasium; 100 Blackhawk Drive; Sat. 10 am-5 pm, Sun. 10 am-4 pm; Admission is Free!; Annual show. Silent auctions. Contact Alison Alison, Viroqua, WI, (507) 895-8109; e-mail: rockinbabe@acegroup.cc

June 13: Skokie, IL 4th Annual Rock Swap; Chicago Rocks & Minerals Society, St. Peter's United Church of Christ gymnasium; 8013 Laramie (across from the public library on Oakton); Sat. 1 pm-5 pm; Admission is free; Great deals on rocks, minerals, fossils, crystals, geodes, cabochons, hand made jewelry, and lapidary related items. Free parking. Kids must be accompanied by an adult.; contact Jeanine N. Mielecki, (312) 623-1554; e-mail: jaynine9@aol.com; Web site: www.chicagorocks.org

June 16: CVRMS Picnic—Noelridge Park, Cedar Rapids, IA—lapidary. Pot luck picnics, bring your own set up. Usually eat dinner about 6:30 pm.

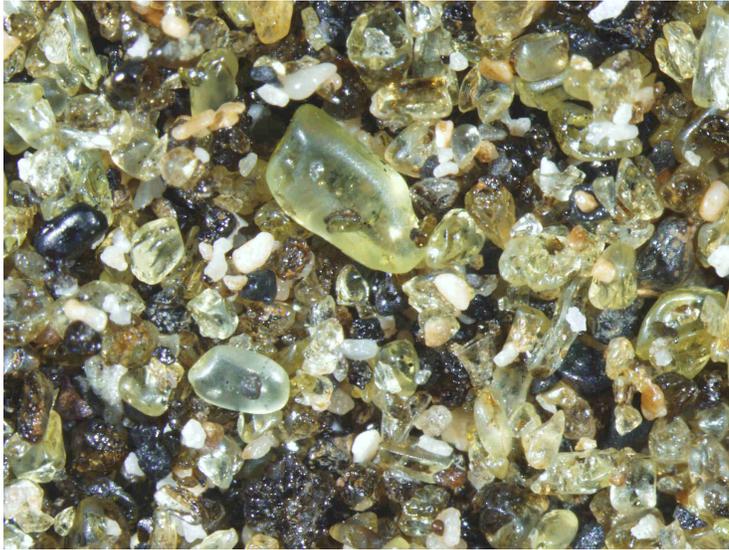
July 18-19: Moose Lake, MN: Annual show; Carlton County Gem and Mineral Club, Moose Lake High School; 413 Birch Avenue; Sat. 9:00 am-5:00 pm, Sun. 9:00 am-4:00 pm; Admission is free; "Agate Days", Contacts: Re Inside vendors: Gary Pitoscia, (218) 724-1894, pitosciajg@charter.net; Tailgators: Carol Risdon (218) 879-3968, carolannrisdon@gmail.com.

July 21: CVRMS picnic—Squaw Creek, Cedar Rapids, IA—geode cracking. Pot luck picnics, bring your own set up. Usually eat dinner about 6:30 pm.

August 18: CVRMS picnic—Morgan Creek, Cedar Rapids, IA—bingo. Pot luck picnics, bring your own set up. Usually eat dinner about 6:30 pm.

August 21-23: South Bend, IN. 52nd Annual Jewelry, Gem, and Mineral Show and Sale by Michiana Gem and Mineral Society, St. Joseph County 4-H Fairgrounds - Esther Singer Bldg (5177 South Ironwood Road)

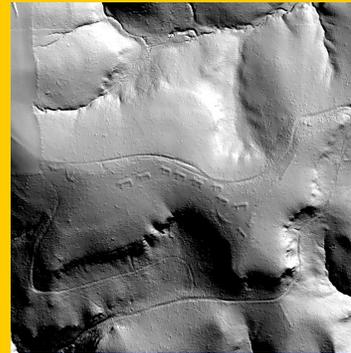
What in the World?



This is a microscopic photograph of sand. **What's so special about it?** You have two months to come up with the answer since the newsletter is not published during the summer. Read the September issue to find out why this sand is worthy of your attention. Hint: this sand appears somewhere in the United States.

"What in the World?" is an article series by Ray Anderson.

Answer Revealed



May's image: LiDAR (Light Detection And Ranging) is an aircraft based tool that uses radar energy to image the ground surface through trees and other vegetation. It is capable of imaging surface relief of a few inches or less. Iowa was one of the first states to complete LiDAR coverage of the entire state. The LiDAR image (above) shows the Marching Bear Mound Group in Effigy Mounds National Monument in Allamakee County.



This image (left) is a traditional aerial photo of the same area during heavy leaf growth.

Forestry Travel Management Plans

For those of you who live east of the Rockies and don't think you have concerns about using Forests to either collect in or go through to get to your collecting sites....think again. These forests are writing or have already written Travel Plans for each of them and the closure of roads throughout is stunning. And this only covers U.S. Forests, we are NOT talking about state forests which is a whole different problem. And don't forget all the states that have seashores....this is becoming another problem on what you can pick up on the beaches of each state.

Stay informed and let us know if there are problems....we can't police all areas, you as ALAA members need to get involved.

YOU ARE NOT ALONE, so let ALAA know how we can help and support you. We are all volunteers, some with lots of time to work to solve problems and others with limited time, but you all are a part of this vast puzzle and we need you.

Contact: info@amlands.org
Article by Shirley Leeson, ALAA President
president@amlands.org



—Excerpted from ALAA Newsletter
ALAA is the lobbying arm of the American Federation, working on behalf of rockhounds to keep public lands open and accessible to all, including the elderly and handicapped.

ASK A GEOLOGIST

by Ray Anderson, CVRMS Vice President

Difference Between Fossilized, Petrified and Opalized

Ask a Geologist is a monthly column that gives CVRMS members an opportunity to learn more about a geologic topic. If you have a question that you would like addressed, please send it to rockdoc.anderson@gmail.com, and every month I will answer one in this column. Please let me know if you would like me to identify you with the question. I will also try to respond to all email requests with answers to your questions, regardless of if it is chosen for the column.

A **CVRMS member** asked, "what is the difference between fossilized, petrified, and opalized?"

The word "fossils" come from Latin roots and literally means "obtained by digging," but generally means "the preserved remains or traces of animals, plants, and other organisms from the past". In practice it usually also implies that the remains have undergone some sort of alteration, such as permineralization (the filling of voids and empty spaces by minerals, usually transported into the object by groundwater) or replacement (when the original material is replaced by another mineral). An example of replacement is when calcite that forms the shell of a brachiopod is replaced with quartz (in this case this is called silicification - replacement with silica). The word "petrified" is commonly used in place of permineralization or replacement, but petrified is rarely used in scientific literature.

Petrified is often used to describe wood that has been permineralized by quartz or shells that have been replaced by pyrite. The word "opalized" means that the replacement or permineralization was with opal, a hydrous form of quartz that usually contains between 6%-10% water. Opal is usually structured as a series of microscopic quartz spheres



Petrified Wood National Park in Arizona is one place to find outstanding petrified samples among the Chinle formation.

with the water between them. Opal refracts light, producing a milky color (called opalescence). But if the quartz spheres are packed in an orderly, layered structure (precious opal, it will produce blotches of bright colors (called a play of colors). So wood that has been permineralized with opal can most precisely be called "opalized", although it may be said to have been "petrified" or even more generally "fossilized".

There are other types of fossils that have not been permineralized or replaced. Plants or animals can also be preserved (fossilized) as molds or casts, as impressions in rocks, or as a carbon film on rock. These forms of fossils are only rarely also petrified or opalized.

WEBSITE OF THE MONTH

craterofdiamondsstatepark.com

Crater of Diamonds State Park near Murfreesboro, Arkansas, the only diamond-producing site in the world open to the public, stands out as a unique geological "gem" for anyone to explore and enjoy.

Experience a one-of-a-kind adventure hunting for real diamonds. Search over a 37 1/2-acre plowed field, the eroded surface of an ancient volcanic crater that 100 million years ago brought to the surface the diamonds and

some of the semi-precious stones lucky visitors find today.



Crater of Diamonds State Park is a rock hound's delight since, along with diamonds, more than 40 types of rocks and minerals can found there.

The website offers a database of recent discoveries plus a list of the historic top finds including the massive 40 carat white "Uncle Sam" diamond found in 1924.

Officers, Directors, and Committee Chairs

| | | |
|---------------------|---|----------|
| President | Marv Houg (m_houg@yahoo.com) | 364-2868 |
| Vice President. . . | Ray Anderson (rockdoc.anderson@gmail.com) | 337-2798 |
| Treasurer..... | Dale Stout (dhstout55@aol.com) | 365-7798 |
| Secretary..... | Dell James (cycladelics@netins.net)..... | 446-7591 |
| Editor..... | Dave Chase (djchase@infionline.net) | 360-9367 |
| Liaison | Joy Cummings | 981-2482 |
| Imm. Past Pres. . | Sharon Sonneitner (sonnb@aol.com) | 396-4016 |
| Director '15 | Jeff Kahl | 455-2201 |
| Director '16 | Dave Roush (daroush1@gmail.com) | 363-7842 |
| Director '17 | Jay Vavra (pending) | pending |
| Sunshine | Dolores Slade (doloresslade@aol.com)..... | 351-5559 |
| Hospitality | Jeff Kahl | 455-2201 |
| Webmaster | Sharon Sonneitner (sonnb@aol.com) | 396-4016 |

Club meetings are held the 3rd Tuesday of each month from September through November and from January through May at 7:00 p.m. at the Rockwell Collins 35th Street Plant Cafeteria, 855 35th St NE, Cedar Rapids, Iowa. The December meeting is a Christmas dinner held on the usual meeting night. June, July, and August meetings are potlucks held at 6:30 p.m. at area parks on the 3rd Tuesday of each month.

CEDAR VALLEY ROCKS & MINERAL SOCIETY

CVRMS was organized for the purpose of studying the sciences of mineralogy, geology, and paleontology and the arts of lapidary and gemology. We are members of the Midwest (MWF) and American (AFMS) Federations. Membership is open to anyone who professes an interest in rocks and minerals.

Annual dues are \$15.00 per family per calendar year. Dues can be sent to:

**Dale Stout
2237 Meadowbrook Dr. SE
Cedar Rapids, IA 52403**

CVRMS website:
cedarvalleyrockclub.org

Summer Meetings:
Area Parks
JUNE 16, JULY 21, AUGUST 18 @ 6:30P.M.
See page 3 for details



David Chase, Editor
2077 Sunland Dr SE
Cedar Rapids, IA 52403