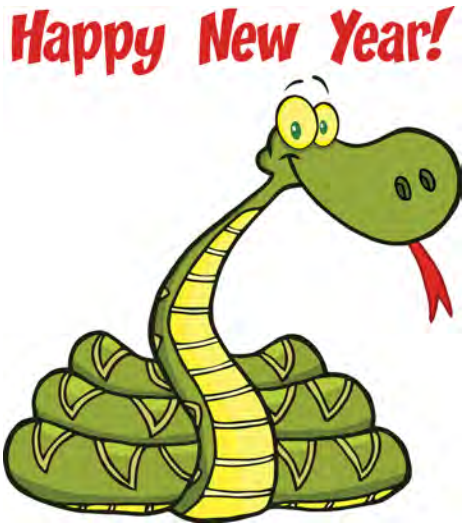
The Sierra Pelonagram

January 2019

... Member of the California Federation of Mineralogical Society Inc. ...

The Sierra Pelona Rock Club is a non-profit organization founded in 1959 with the objective to sponsor activities and promote interest and education in: mineralogy, lapidary, geology, paleontology and related subjects.

Ruby is distinguished for its bright red color, being the most famed and fabled red gemstone. Beside for its bright color, it is a most desirable gem due to its hardness, durability, luster, and rarity. Transparent rubies of large sizes are even rarer than Diamonds. Ruby is the red variety of the mineral Corundum. Sapphire, the other gem variety of Corundum, encompasses all colors of Corundum aside from red. In essence, Ruby is a red Sapphire, since Ruby and Sapphire are identical in all properties except for color. However, because of the special allure and historical significance, Ruby has always been classified as an individual gemstone, and is never identified as a form of Sapphire (though some purplish-red colors may straddle the line of being classified as either Ruby or Sapphire).



Birthdays

Happy Birthday to all you Winter Babies!

January	**February**
David Burkhead	Adam Hamilton
Larry Holt	Brigitte Mazourek
Karen Lindner	Tina White
Larry Patrich	
Martin Schreiner	
Robin Shane	
Bruce Velie	
Austin Williams	

Officers:

President – Bill Webber
Vice-President – Kay Denson
Secretary: Heidi Webber
Treasurer –Shana Brunes-Ruiz
Federation Director (CFMS/AFMS) --Evelyn Velie

Chairpersons:

Claim--Mike Serino
Donation Rock Table--Ron and Akiko Strathmann
Equipment--Bill Webber
Field Trips – Julie Tinoco
Historian -Open
Hospitality – Evelyn Velie
Membership – Heidi Webber
Website-- Larry Holt
Pelonagram Publisher, Editor – Heidi Webber
Programs –Tina White
Publicity –Bruce Velie
Sunshine--Brigitte Mazourek

The Sierra Pelona Rock Club, is a member of the California and American Federation of Mineralogical Societies, Inc. (CFMS/AFMS). The general club meetings (Open to the public) are at 7:30 PM, on the 3rd Tuesday of each month at:

The Clubhouse of the Greenbrier
Mobile Estates EAST
21301 Soledad Canyon Rd
Canyon Country, CA 91351

Contact the Club or the Sierra Pelonagram Editor at:
Sierra Pelona Rock Club
P.O. Box 221256
Newhall, Ca. 91322
Or e-mail: hwebber@pacbell.net
Visit the SPRC website www.sierrapelona.com

President's Message

Well, a new year with a new board. I am your president once again. I know this year will pack just as much fun as the previous years. All you have to do to enjoy the various club benefits is continue participating. We will have great field trips and workshops as well as the monthly meetings and programs. Also, feel free to join us at our Board Meetings on the first Tuesday of each month (except for the January meeting--January 1 is not a good day for anything other than recovering from the night before).

I want to extend my greatest thanks to Ron Rackliffe for his dedicated years as our club president. He kept us on a strong path of enrichment and enjoyment of our great hobby of rock and gem collecting. I am also quite happy that all of the club chairpersons have agreed to continue in their various jobs within the club.

We hope to firm up field trips for the year, one of which just HAS to be Shark Tooth Hill. Once we know what trips and when, there will be an email sent out to membership so you can make plans.

Also, dues are due NOW. We have to pay for insurance and membership to the CFMS now too and since we are such a small organization, we really need everyone to be as prompt as possible so we can also meet our obligations.

So here's to the New Year! May it be a wonderful one

Bill Webber
President, SPRC

Sierra Pelona Rock Club General Meeting
Greenbriar Estates
December 8, 2019

The club enjoyed their annual Holiday Dinner beginning at noon, December 8. The turkey, gravy and ham were provided by the club, prepared by Heidi Webber. Members provided all the delicious side dishes and desserts. Karen Rackliffe made 6 lovely centerpieces, and Ron made containers of candy to sit under the centerpieces.

Ron Rackliffe, club president, started the General Meeting at 12:30. He announced that board elections would be held with voting by a show of hands. It went rather quickly, with the new board as follows:

President:	Bill Webber
Vice President:	Kay Denson
Treasurer:	Shana Brunes-Ruiz
Secretary:	Heidi Webber
CFMS Rep:	Evelyn Velie

Various committee members will be contacted to verify if they wish to continue in their current capacity.

Kay Denson advised that Dues are Due as of January 1, 2019 and she would be more than happy to accept them now. As of the February Board Meeting, they will be considered late and a $2 fee will be added to the annual dues.

An auction of the items brought by members for the White Elephant was quick and lively and made a nice addition to our funds. The silent auction of the rocks followed to great success. The club's first ever 50-50 raffle was won by Heidi Webber.

The Holiday Dinner for 2018 was called at 2pm.

Respectfully Submitted

Heidi S Webber for Shana Brunes-Ruiz

A sample of 2-billion-year-old salt (pink-white recrystallized halite) with embedded fragments of calcium sulfate from a

Two-Billion-Year-Old Salt Rocks Show How Earth Got More Oxygen to Support Life

A 2-billion-year-old chunk of sea salt provides new evidence for the transformation of Earth's atmosphere into an oxygenated environment capable of supporting life as we know it.

The study by an international team of institutions including Princeton University found that the rise in oxygen that occurred about 2.3 billion years ago, known as the Great Oxidation Event, was much more substantial than previously indicated.

"Instead of a trickle, it was more like a firehose," said Clara Blättler, a postdoctoral research fellow in the Department of Geosciences at Princeton and first author on the study, which was published online by the journal Science on Thursday, March 22. "It was a major change in the production of oxygen."

The evidence for the profound upswing in oxygen comes from crystalized salt rocks extracted from a 1.2-mile-deep hole in the region of Karelia in northwest Russia. These salt crystals were left behind when ancient seawater evaporated, and they give geologists unprecedented clues to the composition of the oceans and atmosphere on Earth more than two billion years ago.

The key indication of the increase in oxygen production came from finding that the mineral deposits contained a surprisingly large amount of a component of seawater known as sulfate, which was created when sulfur reacted with oxygen.

"This is the strongest ever evidence that the ancient seawater from which those minerals precipitated had high sulfate concentrations reaching at least 30 percent of present-day oceanic sulfate as our estimations indicate," said Aivo Lepland, a researcher at the Geological Survey of Norway, a geology specialist at Tallinn University of Technology, and senior author on the study. "This is much higher than previously thought and will require considerable rethinking of the magnitude of oxygenation of Earth's 2-billion year old atmosphere-ocean system."

Oxygen makes up about 20 percent of air and is essential for life as we know it. According to geological evidence, oxygen began to show up in the Earth's atmosphere between 2.4 and 2.3 billion years ago.

Until the new study, however, geologists were uncertain whether this buildup in oxygen -- caused by the growth of cyanobacteria capable of photosynthesis, which involves taking in carbon dioxide and giving off oxygen -- was a slow event that took millions of years or a more rapid event.

"It has been hard to test these ideas because we didn't have evidence from that era to tell us about the composition of the atmosphere," Blättler said.

The recently discovered crystals provide that evidence. The salt crystals collected in Russia are over a billion years older than any previously discovered salt deposits. The deposits contain halite, which is called rock salt and is chemically identical to table salt or sodium chloride, as well as other salts of calcium, magnesium and potassium.

Normally these minerals dissolve easily and would be washed away over time, but in this case they were exceptionally well preserved deep within the Earth. Geologists from the Geological Survey of Norway in collaboration with the Karelian Research Center in Petrozavodsk, Russia, recovered the salts from a drilling site called the Onega Parametric Hole (OPH) on the western shores of Lake Onega.

The unique qualities of the sample make them very valuable in piecing together the history of what happened after the Great Oxidation Event, said John Higgins, assistant professor of geosciences at Princeton, who provided interpretation of the geochemical analysis along with other co-authors.

"This is a pretty special class of geologic deposits," Higgins said. "There has been a lot of debate as to whether the Great Oxidation Event, which is tied to increase and decrease in various chemical signals, represents a big change in oxygen production, or just a threshold that was crossed. The bottom line is that this paper provides evidence that the oxygenation of the Earth across this time period involved a lot of oxygen production."

The research will spur the development of new models to explain what happened after the Great Oxidation Event to cause the accumulation of oxygen in the atmosphere, Blättler said. "There may have been important changes in feedback cycles on land or in the oceans, or a large increase in oxygen production by microbes, but either way it was much more dramatic than we had an understanding of before."

http://www.geologyin.com/2018/03/2-billion-year-old-salt-rocks-show-how.html#12ptghj8AmtEGdKj.99 Follow us: @GeologyTime on Twitter