



ROCK PICKENS

ST. LAWRENCE COUNTY ROCK & MINERAL CLUB Date: November, 2019

November



The next Club meeting is Wed., **November 6th**, 6 pm @ the **Canton Library**.

Save the date:

12/14/2019

Christmas dinner party, Sat. December 14th
at 6:00 PM, Mullins Restaurant, Gouverneur, NY.
5:30 Cocktails - Cash bar.

\$10.00 stipend for current members. We will be sending out formal invitations with meal choices very soon. Election of officers will be included at the dinner meeting. Please RSVP to wdellie@gmail.com or by calling 315-287-4652 to reserve a reservation with dinner choices, once announced.

President: William deLorraine
Treasurer: Phoebe Rogerson
Secretary: Joanna deLorraine
Advertising Chair: Elaine Hopper
Webmaster: Glen Simonelli

Field Trip Coordinator, VP and Show Chairperson are Needed for 2020: *If interested please contact Bill @ 315-287-4652 Election of officers at the annual Christmas Party, which will be effective January 01, 2020 – January 0, 2022*

www.stlawrencecountymineralclub.org

e-mail: wdellie@gmail.com

Mail checks for **annual dues** 8/ 2019 – 8/ 2020 to:

William deLorraine, President
1 Indian Head Trail
Gouverneur, NY 13642

PLEASE NOTE

Club Dues have Increased:
\$15.00 Single Membership
\$25.00 Family Membership

Upcoming Shows 2019:

November 16-17—LEBANON, PENNSYLVANIA:

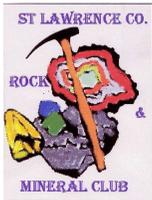
Annual show; Mid-Atlantic Gem and Mineral Association; Lebanon County PA Fairgrounds and Expo, 80 Rocherty Road; Sat. 10-5, Sun. 1-4; General admission \$5 (discount coupon at website), free admission for children under 12; Vendors from across the U.S. offer a variety of specimens, displays, exhibitions, materials, and jewelry; contact Teresa Schwab, PO Box 352, Monrovia, MD 21770, (301) 807-9745; Email: beadware@rcn.com

St. Lawrence Co. Rock & Mineral Show 2020 is scheduled for August 22nd & 23rd at the Canton Pavilion. New RV electric hook-ups are now being provided for our vendors and visitors.



A Brand-New Mineral Species
Discovered...Inside a Diamond!

A diamond mine in South Africa has produced a diamond crystal that was discovered to have another mineral trapped inside it. It is not unusual for diamond crystals to be black from carbon inclusions. But it is very rare for another mineral species to be trapped inside a diamond.



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The mineral trapped in this diamond turns out to be a mineral that was never described or known before. It was given the name “goldschmidtite” in honor of a famous chemist and crystallographer named Victor Moritz Goldschmidt. It was formed deep in the mantle of the earth. The mantle is the middle layer of the earth and is below the crust (and above the core). Temperatures and pressures deep in the mantle are so high that carbon crystallizes into diamond.

You can read more about this discovery at the following link: <https://www.foxnews.com/>

Rainforest Article by Dave Millis

Sourcing Earth's Oxygen

The general feeling in the world today is that destroying the rainforests would deplete earth's oxygen with devastating consequences. This is what happens when conclusions are made with insufficient data. The conclusion is (surprisingly) wrong.

Before drawing a conclusion like that, we must measure both the amount (of Oxygen) created and the amount used by the rainforest.

As a tree grows it builds new cells. The casing is made during the photosynthesis which makes sugars with strings of molecules – CH₂O. Six of them is sugar (I think glucose), 11 might be cane sugar, and larger groups are cellulose. In one form or another, cellulose are cell casings. The cell is not empty; the contents include DNA, RNA, a cell nucleus and others. These parts are created by the tree by using other minerals such as nitrogen and phosphorus and burning sugars with oxygen for power. Thus, the tree consumes oxygen, too.

The statement that the rainforest creates 20% of earth's oxygen may be accurate, but the rainforest uses it all.

Robert Walker, BSc 1st Class, MHum York UN. Postgrad Study at Wolfson College, Oxford has studied sourcing earth's oxygen and concluded that the oxygen comes mostly from the ocean. He says, “Note, 70 to 80% of the Oxygen comes from

algae and the ocean.” Also, if all plants were destroyed by some freak of nature, “it would take 1000's of years” for the O₂ level to drop. “Plenty of time for plants to grow back.”

Dee Francis Padamadan, Technical Director of Pellegrini, UK says, “A large mature tree consumes so much oxygen that, after photosynthesis, it would not have any left to add back into the atmosphere.”

I check on deciduous trees like we have in the Northeast, they too burn Oxygen – to stay alive in winter, and of course when they grow so we are not getting O₂ from them.

Conifers might photosynthesize in the winter but they must burn sugars to protect the needles. Probably, they are also in balance; using what they make. That is, for the large mature trees.

What about sequoia trees, the largest living organism on the planet? They have regulated their growth to such a slow rate that it takes 3000 years to become mature.

What about redwoods? These are the tallest trees; mature trees are about 300 years old.

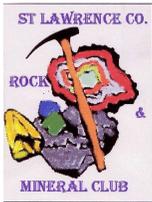
It seems that all trees regulate their size to match their ability to produce all the oxygen they need and no more!

Speculations:

First and possibly the wildest speculation is that photosynthesis evolved, so that land plants could evolve. Second, during the Devonian mass extinction, plants were originally using more than they could produce and pollution was one factor causing the extinction. Pollution is already a known factor. I suspect this is where the plants learned to grow slower by being forced to use less O₂.

What about other plants? Speculation runs Rampant.

(Dave Millis was guest speaker at the October club meeting at the Smoke House, Madrid, NY)



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News and Notes from the Prez

Our club was the recent recipient of a small mineral collection. I would like to thank Roy Rosenbarker for picking it up and safekeeping it at his home until Joanna and I were able to stop by, pack it up and bring it back with us to Canton for storage at the Club's bin site. Some of the collection was minimally labelled but a whole lot of it is going to need to be properly boxed and labeled. Roy's idea is to bring it bit by bit to club meetings where we can have fun kibitzing, doing mineral identifications and boxing the specimens together. I think March might be a good time to begin this process, after the February trip to the Albany mineral show in Albany.

I have seen the profound impact that donations had on our club's fund-raising efforts over the years as we help university students in their geologic and mineralogy studies by our donations to SUNY Potsdam and St. Lawrence University geology department scholarships. These bequeathments by former members and donations by other collectors have played pivotal roles in our work together.

We have thus been inspired to change provisions in our will to include the St. Lawrence Mineral Club in the following way. Our NYS specimens will go to the State Museum in Albany, NY; no change there. The remainder of the collection will be received by the St. Lawrence Mineral Club.

We're thinking that when we're "gone collecting" it should help generate lots of dollars for a good cause. We also hope that others might consider similar donations as well.

Mineral of the Month: Goethite

Goethite is a mineral that contains iron, oxygen and hydrogen. It forms in low temperature situations. This is why it is commonly found in sediment and dirt. It was first studied and described in 1806. The first specimens that were studied were from Hollertszug Mine in Herdorf, Germany.

Goethite is mined as an iron ore. Because it is usually brown, it is also called brown iron ore. It is also used as a pigment to make brown coloring. It is 5 to 5.5 on the mineral hardness scale.

Goethite was named after Johann Wolfgang von Goethe. He was born in 1749 and died in 1832. Von Goethe was a German poet, writer, naturalist, artist and politician. He also studied law but he didn't enjoy it very much.

Goethite forms when other iron-rich minerals are weathered. Pyrite is one of those minerals. When pyrite crystals are weathered, in the right geologic situation, the sulfur in the iron pyrite is replaced with a molecule that is made up on oxygen and hydrogen (this is called a hydroxyl molecule). The result is a mineral specimen that has the chemical formula of goethite and the crystal form of pyrite. In the world of minerals, this is called a pseudomorph which means false form.

Nice pseudomorphs of goethite after pyrite have been found in Utah, Pennsylvania and Spain. (Diamond Dan Publications)