# Rock Talk

November 2019

#### Withlacoochee Rockhounds

# **Rock Talk**



2019

# November 13th Meeting Program

The November club meeting program with be a "Show and Tell". Members are asked to bring in specimens, equipment, or tools to explain to the club members.

Sharon Raffone and Edward Norman will arrive at the meeting early with an extensive collect of gemstones that she would like to

sell

The rock cutting, grinding, and polishing equipment will be available for member use before and after the business meeting and program.

Refreshments will be provided.



# **October Jewelry Class Photos**















Photos by Roberta Oldread

# **October Club Meeting Photos**





A busy place

Lots going on at the meeting



Mr. Bear's wampum



Specimens to see and touch



Bill checking out for sale items

#### Withlacoochee Rockhounds Monthly Club Meeting Minutes October 9, 2019

- The meeting was called to order at 7:02 PM by club president Judith Birx.
- We all stood for the Pledge of Allegiance followed by a moment of silent prayer.
- There was one new member, Holly Clisby, and three guests Barb Gugliotti, Jennifer Woods, and Paola Mazzoni.
- Club treasurer, Janet Wheeler, gave the Treasurer's Report. Mark Moore made a motion to accept the Treasurer's Report, it was seconded by Dave Letasi, and accepted by all.
- Judith mentioned that there is an amendment to the Secretary's Report from September Board meeting. Roberta Oldread presented the event flier that she created for the Brooksville Farmers Market, which includes a \$1.00 coupon for November 24<sup>th</sup>. Roberta and Lauren Bell are going to be representing the club at the Brooksville Farmers Market. Volunteers are needed to help ID specimens that are brought in. It was clarified that Doug DuPont only does the club's lighted displays at the gem show, not the gem show set up.
- Judith made a motioned to except the secretary's report with added amendments, Mark Moore approved the motion, and it was seconded by Mike Gridwood and accepted by all.
- Old Business
- The gem show has sold tables. Judith mentioned that we have many club members who have signed up to volunteer during the gem show. The Club will be purchasing prepackaged snacks to sell at the gem show.

- New Business
- Lauren Bell discussed her trip to Graves Mt. in Georgia and had a tote box full Savannah River agate, offering each member one specimen. The Vulcan Mine trip will be on Saturday, October 19. Meet at front gate area before 9:00 AM. Lauren Bell is the club contact person for this dig.
- Next Board meeting will be on October 15th at 6:30 PM
- The November jewelry class is on November 5<sup>th</sup> at 9;00 AM noon. Judith is teaching this class. The project will be fresh water oysters with pearls inside that we will make cages for pearls. Cost is \$2.00 per oyster. There was a sign up sheet for the number of oysters each person wants for the jewelry class. The \$2.00 per pearl fee will be paid at jewelry class along with \$1.00 club fee. Bring your wire to make the cages.
- The next club meeting will be on November, 13<sup>th</sup> at 7:00 PM. The program for that meeting will be a "show and tell". Next month's refreshments will be provided by Lauren Bell, Jan Gathj, and Bear.
- Mark Moore made a motion to end the meeting. It was seconded by Mike Girk-wood, and passed by all.
- The meeting adjourned at 7:32 PM.

Minutes respectfully submitted by Roberta Oldread, substituting for Melodye Steverson

#### Welcome New Member

Welcome new Withlacoochee Rockhounds club member **Holly Clisby**, Spring Hill

We now have 103 adult members and 10 junior members.

#### Tuesday Workshop at the

#### Weeki Wachee Senior Citizens' Center

Withlacoochee Rockhounds is giving workshops on wire wrapping (stones), chain making (jump rings) and possibly other related skills at the Weeki Wachee Senior Citizens' Center in Spring Hill. The workshops are normally on the **first Tuesday of the month from 9:00 AM until 12:00 noon** The cost per workshop is \$1.00. To participate in the workshops, one must be a member of the *Withlacoochee Rockhounds*, which covers dues to the *Weeki Wachee Citizens Club* 

#### Weeki Wachee Senior Citizens' Center. 3357 Susan Dr. Spring Hill FL 34606 For more information call Judith at: 352-587-1702

Next Workshop November 5th at 9:00 AM—12:00 PM

The November jewelry class will be taught by Judith. We will be opening live oysters, each with a pearl inside and making a wire cage to contain the pearls. At the last meeting everyone who wanted to order oysters signed up with the number of oysters they want-



Next Meeting, Wednesday Nov. 13th, 7:00PM at the Weeki Wachee Senior Citizens Center

#### Withlacoochee Rockhounds



Hanging out at Tony's Rock Shop in Magdalena, New Mex-

Hey everyone, I hope you had a chance to get out to the Vulcan Mine and collect. The weather is finally cooling down. From my last newsletter you know that Scott and I continued traveling on our twelve western states adventure. The next day, after our adventure at Palo Duro Canyon in Texas, we proceeded to



Smithsonite from the Kelly Mine

New Mexico. We were searching for quality specimens of smithsonite for Mark Moore. Mark set up an appointment at Tony's Rock Shop in Magdalena, New Mexico. Mrs. Zamora the owner of Tony's Rock Shop features blue to green colored smithsonite that her brother Tony Ontero discovered. These zinc carbonate mineral deposits came from the Kelly Mine nearby. I hoped that we would find specimen grade samples, around four by five inches for a few hundred dollars. We entered the shop and looked at numerous pieces of various sizes. One piece was about 16 inches across with good color. I asked how much. Her response was \$17,000. Of coarse I went into sticker shock. After composing my self, I noticed a smaller piece that looked similar to the



Smithsonite

specimen I have in my collection that I purchased in the 1970s. Again I asked the price... \$975. Clearly it was not going to be easy to obtain anything that would resembles a decent specimen grade sample. After hours of negotiation we settled on five slightly larger than thumb nail size pieces with excellent color and surface textures for a total of \$240. It's simply a case of supply and demand. The local mine was purchased by a mining conglomerate from California that refuses entry for further discovery of specimens.

After a brief over night layover in Albuquerque, we traveled to Durango Colorado. The weather was gorgeous and all the dogwood trees were in bloom. We hunkered down in a Best Western, and settled in our room next to the pool, with its noisy entrance gate. Otherwise it was fantastic stop. We planned on staying there for several days. We took a side trip back into New Mexico visiting the Four Corners Monument. The monument had numerous Navajo artisan booths filled with local artwork and goods. Scott found two beautiful paintings of the natural local rock formations, skillfully colored in enamel paint on large slabs of natural rock found in the Navajo reservation.



Scott's Navajo rock painting

We took pictures of the monument where the four states, Utah, Arizona, New Mexico, and Colorado intersect. You are limited to only two photos standing on the exact spot of their corners. We also visited Chaco Canyon and explored the Pueblo ruins of Pueblo Bonito and Pueblo de Arroyo, they are close to one another. The Anasazi Native Americans built the stacked stone structures between 850 to 1100 years ago. These structures were formed by stacking local Creta-

Continued on next page

#### Withlacoochee Rockhounds

#### Dave Letasi Report from previous page

ceous period sandstone and shale slabs to form walls.

That afternoon we tried getting to Ship Rock in North West New Mexico. This towering rock formation is 1583 feet tall and looks similar in outline to an old colonial clipper ship used on the high seas. It's composed of 27 million year old volcanic breccia standing at 7,177 feet above sea level. This rock formation sits on an open flat land area making the rock visible for many miles. Ship Rock is sacred to the Navajo and is situated on their tribal land. Scott and I traveled down many side roads to get photos as close as possible. It is actually only accessible to its base by horse back and requires a Navajo guide. Permission to do so is granted only by their Council elders. Regardless we had a great time enjoying its view while risking an encounter with Navaio tribal law enforcement officers.

Once again we had another fantastic adventure. I hope everyone dodged Dorian and stayed safe during the hurricane season. And I hope everyone will get out to find rock treasures this fall. See you all in November.



Ship Rock monolith painting on rock



Doorway passage in Pueblo Bonito



Pueblo Bonito from the canyon wall



Scott standing in the Pueblo de Arreyo ruins





#### Withlacoochee Rockhounds



# From the VP Mark Moore

#### Enhydros and Liquid Inclusion Stones

The Enhydro, enhydros are generally thought of as fluid filled rocks with water and air trapped inside a seemingly solid stone. But, there is a lot more to it than that. Enhydros and their closely related cousins, rock crystals with "liquid inclusions", are often confused. Many times a stone with a liquid inclusion will be misclassified as an Enhydro. The liquid contained in either type of stone isn't always water, it can also be petroleum (oil) which appears yellow and there isn't always air trapped, it can also be just the fluid which makes the fluid filled stone difficult to find. There can also be bits of carbon or other debris trapped inside along with the fluid. Although many enhydros are silicon-based, they are also formed in crystals of fluorite and calcite. But for now we'll just look at the silicon-based minerals. There is a relatively new way of classifying quartzbased minerals, but since I'm from the "old school" that is how I'm going to write about only macrocrystalline quartz, the common rock quartz and amethyst, and Crypto-or microcrystalline quartz known as chalcedony.

True enhydros are generally found as chalcedony, agates or jaspers, particularly in nodules or geodes, but unlike rock quartz with a liquid inclusion they are composed of either jasper, which is a form of banded microcrystalline quartz (the structure can be seen with a optical microscope) or chalcedony, a form cryptocrystalline quartz (which, are too small be seen with a optical microscope). Both are forms of silicon dioxide (SiO<sub>2</sub>) but generally chalcedony is a mixed form of SiO<sub>2</sub> and morganite. See Fig 1.



Fig 1 agate enhydro

Unlike rock crystal with a large easily identifiable crystal structure, such as the classic "rock quartz" or "amethyst crystal", chalcedony has a crystal structure that is so small that even with a powerful microscope the crystal structure can't be seen. Even though the crystals are small, molecules of water can drift in and out, and therefore it is a beautiful banded enhydro. Improperly handled, it can become an empty tomb or a pile of broken agate or jasper. Cracks don't always mean leaking enhydros. Fig 2 shows an enhydro with major cracks still full of fluid. I found an enhydro fifty or so years ago and stored it away in a sealed box, when the stone was looked at recently (during our move) the fluid was gone and there were no visible cracks in the empty shell. So during 50 years the water vanished. This can happen when an enhydro is improperly handled or im-



Fig 2 chalcedony with cracks but still full of fluid enhydro

properly stored. For example leaving it in a hot area (hot car, direct sun, etc.) or having it experience a large and quick pressure change, such as from a tornado, airplane flight (several of my flights changed altitude very, very quickly) has been known to result in the loss of its fluid or breakage. Enhydros can be found in different forms, but to understand what we are looking at we must first look at how they are formed.

Enhydros are generally associated with volcanic rock. Enhydros are formed when hot, heavily mineralized water flows over a base rock and leaves a deposit of microcrystalline jasper, agate, or quartz with or without defects in the crystal formation. But often as the stone lattice builds around the deposited minerals, breaks in the structure develop flaws that cause a bubble to begin form around the flaw or debris, which then grows to the point where water or other fluid becomes trapped. As the fluid flows over the top of the now solid bubble walls, it seals over and leaves the fluid and generally a bit of air trapped inside. As the water and stone cool, the trapped water will plate out more of its minerals leaving a weakened mineral fluid, water, or oil, with

#### Withlacoochee Rockhounds

#### Enhydros and Liquid Inclusion Stones from previous

some minerals and air inside a sealed bubble. The cryptocrystalline chalcedony or agate then continue to grow as more and more minerals are deposited over the top and around the sealed bubble, forming a hollow geode or one filled with stone and fluid. Knowing that this process takes hundreds of thousands or even millions of years, we can see how the mineral content of the external water supply could change over time. Then the minerals that plate out would also change. These changes in minerals result in changing colors, bands, or even texture of the materials, as the apparently solid stones are exposed to fluid changes. As the fluid changes multiple times over the eons, the result becomes banded chalcedony or agate. The chalcedony stones have been developing and continue to develop over the last 35 to 55 million years. But because of the structure of the microcrystalline quartz, the fluid can drift in and out of the quartz pocket formed by the growing enhydro, such that the fluid in the cavity may have changed several times since its birth, hence the different color bands or structures that form in layers within many geodes and enhydros, as the different minerals plated out.

A relativity fast process of a similar nature occurs (with a different mineral) in the formation of a stalactite or a stalagmite, which occurs as mineral (calcium) laden water drips from a cave roof and evaporates, leaving the minerals in a solid form hanging from the roof and/or rising from the floor. As the minerals change in either process, so do their physical attributes; mainly color but also sometimes the chemical composition of the stone. The stone formed; in my stalactite samples are similar to chalcedony because even under a powerful microscope, I cannot detect any crystal structure. If you notice in the cut stalactite shown in fig 3, there was a major change in the stone early in its formation. Perhaps in a future article we'll look at the interesting formation of "flow stones".



Fig 3 calcite stalactite



Fig 4 liquid Inclusion in rock quartz

Now let's look at enhydro's first cousin the "liquid inclusion". See Fig 4. Formed in the same general way that an enhydro is formed, with the main difference being that the minerals from the hot or sometimes cooler liquid flows over a stone that already has a well defined SiO<sub>2</sub> crystal structure. Known as a macroscopic crystal such as rock crystal or amethyst. when it was formed, the minerals continued to plate out along the same existing crystal structure already in existence. Then somewhere during its formation, a defect in the crystal forms or a piece of impurity lands on the forming crystal, causing the fluid to flow around it. As the crystal structure continues to form, the natural tendency is for the crystal to try to complete its six-sided crystal lattice, because of molecular bonding. This causes dissolved mineral-laden fluid to build up over the inclusion as the cavity forms. This formation is complex; air is sometimes trapped inside, and sometimes the only way the inclusion can be seen is by the movement of debris or a small air bubble trapped within the fluid. Unlike an enhydro, a fluid inclusion has water or oil that was trapped when the crystal was formed and does not exchange fluids like an enhydro that can exchange fluids several times over its life. Therefore when looking at a crystal with liquid inclusions, you might be looking at fluid up to a billion years old, but the enhydro could have exchanged fluids, relatively speaking, vesterday.

A rock can be identified as and enhydro by shaking it to see if you can hear the fluid sloshing around inside. A geode which is fluid filled will feel different than a dry cavity or a solid geode when it is tilted from side to side as the fluid shifts. To get the feeling that you are looking for, take a dry chemical fire extinguisher and tilt it 180 degrees from side to side. You can feel the powder inside shift. In addition a dry cavity geode may have bits of crystal or debris that will rattle when shaken. These stones are called rattlers and may appear and feel different than a solid core or liquid core stone when examined.

#### Withlacoochee Rockhounds

#### Enhydros and Liquid Inclusion Stones from previous

One last interesting note, careful sterile examination of mineral laden water contained in several enhydros were found to contain cell like structures that exhibit diplococcoid, coccobacillus, and bacillus forms (germs) that displayed erratic movement consistent with bacterial motility and not Brownian movement<sup>1</sup>. This tells folks like me who would like to taste the water (fluid) in both an enhydro and liquid Inclusion quartz that I had better test for pathogens before imbibing. That is unless one is willing to take a chance with up to billion plus year old germs. One more point, the first person to email me after reading this article (see my email address in Rock Talk) and tell me they have an interest and why they want an enhydro or liquid inclusion, will get one from me at the December meeting.

BUTLER, Elizabeth<sup>1</sup>, CARMICHAEL,

#### AN INQUIRY INTO MICROORGANISMS CONTAINED IN ENHYDRO AGATE WATER: A GEOCHEMICAL AND GE-OMICROBIOLOGICAL STUDY"

Allison<sup>1</sup>, et al, Department of Geology and Physics, Lock Haven, University of Pennsylvania, Poster given 23 March 2014.

PS: Leslie, Dave, Susie and I are planning a trip back over to Cocoa Beach to visit the Dinosaur Store and Museum to gather material for our school classes next spring. Anyone having ideas for special topics that may be of interest and could be presented to the club let us know during or before the December meeting.

As always, stay safe out there.



#### **Use Our Website**

I try to send an email to all members, with a link to the *Rock Talk* before the jewelry workshop, which normally is a week and a day before the club meeting.

If you don't receive an email with a link to the Rock Talk, you can access our website for the newsletter, club meeting program, and the project for the next Tuesday morning jewelry workshop.

Also, previous Rock Talk newsletters can be downloaded from our website. They have been posted from June 2016.

www.withlacoocheerockhounds.com Mike Stone. editor/webmaster

**Our Website** www.withlacoocheerockhounds.com





#### **KELLY JOHNSON**

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#### Withlacoochee Rockhounds

# 2019

# Magnetic Holder for Jewelry Tools





Next I counterbored two 1-1/4" holes about a half inch deep in the underside of the wood base, exactly 16-7/8 " apart. (Center to center distance between mounting holes on the magnetic strip.) Then I drilled two  $\frac{1}{2}$ " holes through the base, centered in the counterbore.

I cut the heads off the long bolts and ground a one-inch flat spot on the side of each

bolt on end opposite the threads. I drilled an 11/64" hole (tap drill) through the flat spot on the end of the bolt and tapped a 12-24 tread in each hole. The final step was sticking pads on each corner to provide a non-slip surface.

Assembly was simple using only two  $\frac{3}{4}$ " wrenches and an Allen wrench. The tool holder can be disassembled as easily.

#### by Mike Stone

A while back I watched Peg wire wrapping polished stones and saw that she had a variety of pliers scattered on her worktable. Being an X shop teacher, I like to keep my tools organized so I can quickly pick the one I need and also maintain a clean work area. I have been using Harbor Freight magnetic tool strips mounted to the wall behind my work benches and figured having a free-standing magnetic tool strip for jewelry making tools would work.

I used a piece of 3/4 inch thick finished hardwood for the base. I cut it to  $(5-1/4" \times 21")$ . It is heavy enough to keep the tool holder from moving too easily when retrieving and returning tools. I bought two  $\frac{1}{2}$  diameter x 5-1/2 long bolts, four matching nuts, and four 7/16" diameter washers at Rural King. The bolts support the magnetic strip. I had two 12-24 x  $\frac{1}{2}$  socket head cap screws that I used to mount the magnetic strip to the top of the bolts.

#### Withlacoochee Rockhounds

# **Intriguing Diamonds**

Information from National Geographic



A Russian mine has produced a diamond within a diamond, creating a unique creation of nature.

This x-ray image of a diamond duo shows one tiny gem nestled within an empty cavity of a larger diamond. Such a void cannot exist under the crushing pressures deep inside our planet where diamonds form, so researchers think something must have once filled the cavity.



The so-called Matryoshka Diamond, named after Russian nesting dolls, weighs a mere 0.124 grams, and the outer gem is about as wide as a grain of rice is long.

Diamonds are created deep within the Earth where temperature and pressure are extreme. Under those conditions, it would be impossible for a void to exist, as is inside the larger of the two diamonds. Scientists hope to determine what material was originally inside the outer diamond and what became of this material.

It's a first, a newfound diamond freely rattles inside the belly of a bigger diamond. Scientists are puzzling over how such an unusual configuration came to be.

https://www.youtube.com/watch?

v=cO3YdAF7pEk

Sent to us by Michael Steverson.

# For Sale Items

Club members can post appropriate clubrelated type **for sale** items in the *Rock Talk* free of charge. Contact your editors by the 25th of the month to have your items posted in the next issue.

Mike Stone <u>n1ve@amsat.org</u>





Jewels by Jude

Judith Birx Member of Withlacoochee Rockhounds Judithbirx@hotmail.com Natural Stone Jewelry , Wire Wrapping , Crystals , Beading

352-587-1702

# Celtic Designs by Melodye

Ancient echos from the Celtic past brought to life in stone and metal

Melodye Stevenson 407-760-4472 www.DesignsByMelodye.com

#### Withlacoochee Rockhounds is now on Facebook

https://www.facebook.com/withlacoocheerockhounds1/?ref=page\_internal



Next Meeting, Wednesday Nov. 13th, 7:00PM at the Weeki Wachee Senior Citizens Center

#### Withlacoochee Rockhounds



Bench Tips for Jewelry Making and Broom Casting for Creative Jewelry are available on Amazon

#### Winding Jump Ring

If you need a few jump rings of the same size, it is easy to grab a round rod and wind as many as you need. But when you need several of them, some form of winder saves a lot of time. A variable speed screw gun makes quick work of winding the coils. Screw guns are quite inexpensive at discount stores and are remarkably handy for odd jobs in the shop and around the house.

To wind a coil, just bend a right angle on the end of the wire about a half-inch long and insert it into the screw gun chuck. Then wind slowly, keeping a tight coil. I like to rest the end of the mandrel on the edge of the table or bench pin.

Finally, one note of caution; if you are winding an entire length of the wire, be careful as you get near the end of the wire. If the end passes under your thumb, it can cause a nasty scratch or cut.

And for a nice set of mandrels, look for a set of **transfer punches.** The set has 28 sizes, from 3/32 inch to 1/2 inch, and is only about \$12.



In the US it is available from Harbor Freight as item number #3577, and in Europe, it's available from MZS in the Netherlands as item number 250575.

#### **Touching Up a Bezel**

Pumice wheels are good for touching up a bezel after you've set the stone. The hardness of pumice is about 6 on the Moh's scale. It is less hard than quartz, so it shouldn't scratch any of your agates or jaspers. However, I'd avoid or be real careful of using pumice near the softer stones like turquoise, amber, howelite, etc.

If you are unsure about the hardness of your wheels, test them on a piece of glass. Glass is about 5 on the Mohs scale, softer than quartz. So if the wheel doesn't harm glass, it is safe for use on the quartzes and harder stones.

My preference is the one-inch diameter wheels such as those shown below and at: riogrande.com/Product/AdvantEdge-Pumice-Wheels-Medium/332722?pos=2



# **Vulcan Mine Field Trips**

The Vulcan mine in Brooksville is open for rock, mineral, and fossil clubs on the second Saturday of each month., Everyone is to be at the gate before 9:00 AM. Please make sure that you park off to the side of the road because of trucks entering and leaving the property. First we will go into the mine for a brief safety meeting. Then we have three hours to dig and collect specimens, or you can stay the full five hours. You can leave the mine either at noon or at 2:00 p.m. No one can leave the property before these times unless it's an emergency as a mine employee must escort us into and out of the mine.

Even during the winter months the temperature in the mine can reach 80 plus degrees with high humidity, so bring water, a hat, and sunscreen (also shade if you think you'll need it, because there is none in the mine). Sturdy shoes are helpful, also a rock hammer, chisel, eye protection, a bucket or another suitable container, and .newspaper to wrap delicate specimens.

No bathroom, no water, no shade, please be prepared and dress accordingly.

Children are welcome with proper adult supervision. This is a retired limestone pit. There are sharp rocks, wild animals, insects, and other hazards to be mindful of.

> Vulcan Mine Address 16313 Ponce DeLeon Blvd. Brooksville, FL 34641 Lat./long. 28.656481, -82.457544

Next Meeting, November 13th, 7:00 PM at the Weeki Wachee Senior Citizens Center

#### **November Rock Talk**

# For Sale



FROM LHASA, TIBET GENUINE TIBETAN TURQUOISE EARRINGS .925 SILVER BY AND SIGNED P.S. FRANK \$75.00 OBO MICHELE EVANS 352-232-0375

# **Show Us Your Stuff**

We're always looking for information for the *Rock Talk*. Club members would enjoy seeing other members' rock cutting and polishing equipment, display cabinets, projects, and favorite specimens. Take a photo and send it to your editors along with a description and we will be glad to include it in our newsletter.

Mike Stone n1ve@amsat.org

#### **Board of Directors Meeting**

The next Board meeting will be held at the Weeki Wachee Senior Citizens Center on **November 19th** at 6:30 PM. The Annual Withlacoochee Rockhounds Gem Show is Coming Veterans Memorial Park 14333 Hicks Road Hudson, FL 34669

December 6, 7, and 8, 2019



Club member volunteers are needed for the 2019 gem show committee. Sign up at the June club meeting..



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#### **Rock Talk**

#### Withlacoochee Rockhounds

Our monthly club meeting is held at the Weeki Wachee Senior Citizens Club, 3357 Susan Dr., Spring Hill, FL 34606, on the 2nd Wednesday of each month from 7:00 to 9:00 PM



#### www.withlacoocheerockhounds.com

#### Your Business Card Size Ad in Rock Talk

The cost for non-club members to advertise their businesses in Rock Talk is \$10.00 per month. . Contact Mike Stone to set up an ad in both the club newsletter and our website. It will benefit both your business and our club.

> Withlacoochee Rockhounds PO Box 5634 Spring Hill, FL 34611-5634

#### **Advertisers Needed**

Please help us find advertisers for the Rock Talk and our website. The club can use the monthly income. Both the Rock Talk and our website have more exposure than only club members

Contact club treasure Janet Wheeler: ceecgirl@tampabay.rr.com or send to: Withlacoochee Rockhounds PO Box 5634 Spring Hill, FL 34611-5634

# Withlacoochee Rockhounds

Purpose

We are a non-profit organization whose purpose is to foster interest and promote knowledge of minerals, gems, fossils, lapidary arts, and earth sciences, through regular meetings, informative programs, workshops, and field trips. PLUS our annual gem and mineral and jewelry show. Membership is open to anyone sharing such interests.

Dues

Dues are \$20.00 annually for adults and \$5.00 annually for children under 18 years of age.

**Club Meeting Location and Time** 

Weeki Wachee Senior Citizens Center, 3357 Susan Drive in Spring Hill. The meetings are held on the second Wednesday of the month at 7:00 PM.

# **2019 Club Officers and Appointees**

President	Judith Birx	352-587-1702	iudithbirx@hotmail.com
Vice President	Mark Moore	352-586-9607	markles@bellsouth.net
Secretary	Melodye Steverson	352-683-9496	melodye@designsbymelodye.com
Treasurer	Janet Wheeler	727-938-3644	ceecoirl@tampabay.rr.com
Rock Talk Editors	Mike Stone / Peggy Burns	603-524-0468	n1ve@amsat.org
Club Web Master	Mike Stone	603-524-0468	n1ve@amsat.org
Mailing Reporter	Janet Wheeler	727-938-3644	ceecgirl@tampabay.rr.com
Gem Bag Coordinator	Gloria DuPont	352-848-5199	ddupont@tampabay.rr.com
Audio/Visual Coordinator	Michael Steverson	407-376-5570	highlander56@gmail.com

#### **Board of Directors**

Ralph Barber (past president) Judith Birx (president) Roberta Oldread (2019) Melodye Steverson (secretary) Ginny Steverson (2021) Mike Stone (2019) Lynn Walters (2021) Janet Wheeler (treasurer)