# Wayne County Gem and Mineral Club News



**Always Looking for Places to Dig!** 





It may look like a embedded cartridge shell, but it is a pyritized Devonian cephalopod from Alden (see page 3)

### Club Meeting, Friday Oct. 9th, 7:00 PM Presbyterian Church, Maple Court, Newark, NY

## Program: "Unusual Pieces"

Bring an unusual piece (or several) and share a story about it. (Mineral, fossil, lapidary)

## Club Workshop, Saturday. Oct. 17th

Our first fall club workshop will be Saturday October 17<sup>th</sup>. Bring your rocks to saw and polish. The workshop is open to all paid club members; we do ask for \$5/visit from each adult to help maintain equipment. We hope to hold similar monthly workshops once a month through the fall and winter.

When: 10:00 AM til mid afternoon, Sat. Oct 17th
Where: The Weiler's Barn and Workshop 6676 E. Port Bay Rd, Wolcott, NY
Rules: BYOR (Bring your own rocks) to saw, grind, polish or even facet. Training on equipment is available. Eve protection is recommended.



A Saturday morning of club fun at a winter 2015 workshop.





"Turritella" sphere see page 2



**Collecting at the Valentine Mine in Harrisville** (see story on page 4)

### **Upcoming WCGMC Field Trips**

October 3 (Sat.) – A local fossil trip to Deep Run is planned for this day. *Leader – Fred Haynes* Meet at Deep Run Beach parking lot at 9:00 AM. Some creek walking is required, wear water shoes.

October 10-11 (Sat.-Sun.) - Walworth Quarry Open House (Sat 7 AM - 2 PM, Sunday 7:00 noon): Arrive early for safety talk. Wear long pants and boots. Bring safety glasses & hard hats (bike helmets OK for kids). Leader – Bill Chapman



The fluorite at Walworth is sparse and hard to extract from vugs, but the reward can be a personally collected transparent fluorite cube. And luckier people get to use quarters for scales instead of dimes!

Specimen and photo by Fred Haynes



# FOSSIL FODDER

**By Fred Haynes** 



## Turritella Agate ... or Not

Sometimes things get named too fast and once labeled incorrect associations are very difficult to rectify. Have you ever seen "**turritella agate**" at your favorite mineral/fossil dealer's table? It has often been polished into cabochons designed to display the whorls of the spiral shaped shell and the agate that has filled the apertures. Raw specimens are attractive as well.



The cabachon on the left is 1.5" high and is from Utah. The raw hand sample on the left is from south central Wyoming. Both are incorrectly labeled turritella agate on their internet source.

The pieces will probably come with the label "Green River Formation" and it might be from Wyoming, Utah or Colorado. The location is likely correct, but the fossil identification is not.

*Turritella* is a genus of **salt water** snails in the gastropod class of the phylum Mollusca. They have lived since the Cretaceous Period, thriving during the Upper Paleocene epoch (56-60 million years ago), just a few million years before the Green River Formation hosting "turritella agate" was deposited. However, turritella were NOT living in the **fresh** water environment of the Green River Formation.



This is a fossil *Turritella mortoni* from the Paleocene epoch. It was found in the silty shales of the marine Aquia Formation in King George County, Virginia. Fred Haynes specimen and photo

Rather, the Green River Formation fresh water snail species is *Elimia tenera*, and is a member of the Pleuroteridae Family of fresh water gastropods. The best preserved specimens are found in the Laney Member of the Green River Formation in Sweetwater County, Wyoming. *Elimia tenera* are prolifically preserved in regions of southern Wyoming, northern Colorado and northeastern Utah where near-shore lake beds were silicified during burial. Intermittent volcanic eruptions likely provided the hot silica-rich ground waters responsible for shallow formation of chalcedony in a subtropical environment where the gastropods thrived.



Polished slabs of "turritella agate" highlight the translucent agate filling the internal voids of the gastropod called *Elimia tenera*.

The stamps depicted in the banner above both correctly depict recent *Turritella* species that are clearly of marine origin. The El Salvador stamp issued in 1980 depicts a *Turritella leucostoma*, a species found along the Pacific coast from Mexico to Peru. The 2008 stamp from Bosnia and Herzegovina features a *Turritella turris* fossil common in the marine Miocene rocks of southeast Europe.

So, next time you visit your favorite rock and fossil shop or show, ask for an agatized *Elimia tenera* cabechon. It is very likely no one will know what you are talking about. But you will!

#### References:

Almon, PRI webpage: http://www.priweb.org/research.php?page=702670/c v\_allmon/951811/619675

Geology.Com webpage: http://geology.com/gemstones/turritella/

### The Annual Trip to Spring Creek in Alden

Having been rained and flooded out in June, the WCGMC found a way to squeeze a trip Alden into its busy August schedule visiting the ever popular site on Saturday August 29<sup>th</sup>. This time the weather was perfect, the water was low, and, as always the fossils were there to be collected. The formidable Ledyard shale cliffs in the creek bed have been a favorite site for collectors for several decades, but winter erosion always seems to expose new ones to extract with a little digging.



Have you ever seen five collectors as engrossed as this? They must be finding something!

The primary attraction to this location is the unit about three feet above creek level where ammonites, cephalopods, and even an occasional trilobite have been pyritized and where pyrite nodules up to an inch in diameter can be extracted. The cephalopod Bill Chapman dug out that is pictured on the front page sticks out the opposite side of the piece and is over 1.5" long.



Michael Watkins found and photographed this 1.5" partially pyritized cephalopod and an enrolled trilobite, probably *Eldredgeops rana*.

A sidelight to the interesting fossil assemblage and pyritization at Alden are the abundant concretions or nodules that are weathering out of the cliff walls. Most lie unbroken in the creek floor, but one relatively large concretion had broken (or been broken) exposing internal cracks which had filled with fine grained black crystalline calcite and a small amount of white selenite. Notice in the picture below that the cracks are internal and do not extend to the nodule's surface. This style of concretion is called a septarian nodule and their origin is somewhat enigmatic.



I decided to take two pieces of that nodule home to accent my largest home grown orange "nodule" of the season. The symmetric pumpkin (also nodular!) is for scale and is 12" high to the base of the stem. Incidentally, the slab behind the Alden/garden display is granite from a recent road in St. Lawrence County.



Bill and Donna have each found a pyrite nodule.



# Finally, four full days in St. Lawrence County

### **By Fred Haynes**

Our 14<sup>th</sup> collecting trip of the year (but who is counting) was, surprisingly, the first official WCGMC venture to St. Lawrence County in 2016. But what we suffered in tardiness, we made up for in quantity. The trip was four days long and included seven separate collecting sites (one, Rose Road, was visited by members on three separate occasions over the 4 days). Several of us stayed in a rented home on Star Lake, owned by Anita Persson, wife of George Persson, who helped us with the Benson Mines visit during the trip.

The trip was not scheduled to start until Thursday morning September 17<sup>th</sup>, but Bill Chapman and I had arrived in Star Lake early evening on Wednesday and we decided to take Bill's black light to Rose Road in Pitcairn for an early start. As always the lower area, known to many as the purple diopside mound (or PDM), lit up bright yellow under long wave with the mineral scapolite and the albite at the "wollastonite skarn" (or green diopside mound) lit up red under short wave.

The large "dirty" gray streaked marble boulders less than 100 feet uphill from that second location continue to be intriguing from a UV perspective. The rocks are not too impressive during daylight, but sparkle with multicolored distinct minerals at night. Blue and green fluorescent minerals occurring within the grey streaks contain diopside, but are also sprinkled with amphiboles that may be best simply labeled as Calcium Subgroup amphiboles. Some may be further characterized as pargasite (Steve Chamberlain, pers. comm.) and others may tend more towards edenite, or even fluoro-edenite, in composition (April 2015 WCGMC News), very tough to tell. There is also an associated mineral that is pink under short wave, but hard to detect in daylight. Rose Road mineralogy is indeed interesting and there is likely much more to be discovered and learned.



Back to daylight collecting, we ventured to Balmat on Thursday where geologist Bill DeLorraine guided us to the dumps behind the St. Lawrence Zinc Company Balmat #4 Mine. In addition to collecting marble laced with red-brown sphalerite, the dumps feature colorful cores of marble or various colors, serpentinite, and other metamorphic hosts that are drilled while assessing and following the elusive lenses of zinc ore.



**Spoils from Balmat.** Large piece is sphalerite laced marble, with massive sphalerite to the right. Greenish core is serpentinite resting on two marble cores, one laced with gray diopside. Calcite of various colors in the 3 cores in front. The longest core is 9" long.

Thursday afternoon it was time for the first of three new sites for WCGMC. The Owen property (*Walter, Rock and Gem, 2013*) is only a bit over a mile from the well known Powers Farm in Pierrepont, and like that tourmaline site it is a privately owned fee site. But that is where the similarity ends.

For starters, although I had been to the site two years before on a Rochester Academy of Science trip, I was not 100% certain I could locate the small and new diggings on a site some 400 yards off of Irish Settlement Road. To add to that bit of apprehension, we were joined on Thursday and Friday by members of the St. Lawrence Gem and Mineral Club so I was "leading" additional folks "into the wilderness". I should not have worried. A member of the



St. Lawrence Club knew the way and a faint trail had been developed and marked with flagging.

Mineralogically, the site also differs from the nearby Powers site. While tourmaline (specifically dravite) is prevalent in the prograde regional metamorphic mineral assemblage at Powers, the Owen site has yet to show evidence of tourmaline. Rather, the prizes there are peristerite (iridescent albite) that is often intergrown with orange calcite, scapolite, and smallish titanite. I did find some mildly iridescent feldspar and one half inch scapolite for a location piece, but the best formed minerals I found were pyroxenes. Until properly identified I am tentatively calling them diopside. Many terminate fully and they are often clustered.



Pyroxene (diopside?) from a pit on the Owen Property, Pierrepont, NY

Friday we pointed our wagons towards Harrisville and the Valentine Wollastonite Mine. Vanderbilt Minerals often dumps fresh rock outside their gate as a courtesy for passing rockhounds, but on this day they were willing to accommodate the two clubs with a visit inside the well know quarry. Mine superintendent Ward Bacon took us to the mine dumps inside the location. The brilliantly blue calcite that mineral collectors seek is a scourge to the miners. It tends to interfinger with the bright white wollastonite reducing the purity of the product and negatively affecting the quarry's economics. Hopefully we took more calcite than wollastonite such that our visit did not impair the operation of one of only two operating wollastonite mines in North America (Dec. 2014 WCGMC News).

### Wayne County Gem and Mineral Club News

Friday afternoon we travelled to the southern Adirondacks and a site known as a field trip stop for university geology departments. They venture to the Moose River location for a look at one of the finest outcrop exposures of prismatine in the eastern United States.

October, 2015



**Prismatine rosettes within garnetcordierite gneiss:** And the chisel was only used as a scale. This outcrop was not "sampled" nor am I divulging the exact location in this note. It is a geologic treasure for future students to see; besides it would be next to impossible to obtain samples off this hard rock face.

Our reason to visit this location was to seek quartz crystals from veins cutting quartzite (see photo in lower right of this page). While many of us were looking along the river bank, Craig Stephens made the find of the day (or perhaps the trip) wading in the Moose River. My field picture (top on middle column), and with the piece set atop a gneiss boulder, does not do this wondrous piece justice.

In addition to the quartz, the Moose River site offers grey to blue calcite with embedded diopside, a skarn I presume, although we only found float pieces.



Terminated Quartz crystals with blackened surface due to manganese oxide and perhaps algae are held together by calcite that has been naturally etched in the river. Not sure what this will look like when cleaned, or for that matter whether it should be cleaned. It is a glorious piece indeed.

Saturday, in a repeat from last year, we were joined by Dr. Mary Roden-Tice's SUNY-Plattsburgh mineralogy class while visiting <u>Benson Mines</u> in the AM and <u>Rose Road</u> in the PM. Both locations have been have been highlighted at length in previous newsletters (see links provided by clicking on the location name), so we'll just include a couple pictures from this year's visit here.



How many collectors can you spot on the Benson Mine dumps? They are looking for muscovite-bearing pegmatite amongst the sillimanite-magnetite gneiss boulders.



This pegmatite boulder has suffered the wrath of many a collector trying to remove a sizable specimen of muscovite and quartz. Witness the spread of mica flakes surrounding the resistant boulder.



Scapolite from Rose Road. Bright yellow under long wave UV.

We returned home Sunday, but not before a trip to Talcville for hexagonite. Yes, Ken Rowe reported last month that the large dump site he frequented had been reclaimed, but thanks to Jerry Curcio's perfect directions we did find a section along the Oswegatchie River where purple tremolite and talc could be obtained.



From left to right: Ken, Craig, Sue, and Linda collecting hexagonite, but hopefully not poison ivy, along the Oswegatchie River near Talcville.

---- Some bounty from three of the locations visited on the WCGMC trip to St. Lawrence County ----



Left: Hexagonite collected in the mine dump material on the banks of the Oswegatchie River along Ames Road. Middle: Pure white acicular wollastonite and some colored calcite from the Valentine Mine in Harrisville. Right: Terminated quartz crystals (upper tier of samples) and calcite, some with included pyrozene from Moose River.

# SITE OF THE MONTH

Maclurites in Plattsburgh by Fred Haynes

The New York State Geological Association (NYSGA) held its annual meeting in Plattsburgh in September. The event, hosted by SUNY-Plattsburgh, featured field trips to several Adirondack sites and I attended one on both days of the event. But we will leave that to a subsequent newsletter. This note focuses on an outcrop just outside Plattsburgh where the gastropod Maclurites magnus can be found. Encouraged to visit the site by a SUNY-Plattsburgh geology student, I found time Tuesday September 15<sup>th</sup> to spend a couple hours walking the outcrop with New York Paleontology Society Field Trip Leader Ray McKinney, who just so happens to live in Plattsburgh. Meeting him on this trip was an unexpected bonus to attending NYSGA.



The cover of NYSM Map and Chart Series #10, Geology of Plattsburgh and Rouses Point, New York-Vermont Quadrangles (1968) by Donald Fisher features the Maclurites gastropod.

The resistant limestone units crop out continuously on both sides of Highway 374 just west of 187 exit 38. The ten to fifteen foot high interbedded limestone units can be investigated by either walking along the top of the outcrop while viewing the large coiled members of the Mollusca phylum on exposed bedding plane surfaces or by walking along the face of the outcrop and viewing the section vertically. In either case the trick is not finding *Maclurites*, it is finding them that are both complete and recoverable. The rock is very hard and does not want to break either across bedding or along it. There are joints, but inevitably they either cut through a desired gastropod or are too far from it to be useful.

Interestingly, there is a local rock quarry hidden just behind the outcrop on the south side of Highway 374. We even parked our vehicles on Quarry

Road! Ray has not sought entry to the guarry for fossil collection, but perhaps will check out that opportunity in the future.

My collecting colleague Ray McKinney shows off a slab of Crown Point Limestone he has removed from the top of the outcrop. On close inspection the piece did contain partial Maclurites fossils, but nothing spectacular. Note the proximity to the interstate exchange!







October, 2015

## WCGMC 2015 Field Trip Schedule

last update (9/28/2015)

It will officially be fall/autumn when you are reading this. Leaves will be falling or about to, but snow is still a ways off so we can (and will) still collect. As you can see below there are local events every weekend in October (two trips, a club workshop, and a show in Rochester). Hope to see you at many of these events. As usual, you should always watch the website for adds and changes, or contact the listed trip leader or Bill Chapman, if you are uncertain whether you have the latest information. This month's activities are in red.

# Remember to attend a WCGMC field trip you must be a club member, or a member of an affiliated club if you do not live in our region.

**October 3 (Sat.)** – A local fossil trip to Deep Run is planned for this day. *Leader* – *Fred Haynes* Meet at Deep Run Beach parking lot at 9:00 AM. Some creek walking may be required.

**October 10-11 (Sat.-Sun.)** - Walworth Quarry Open House (Sat 7 AM - 2 PM, Sunday 7:00 -noon): Arrive early for safety talk. Wear long pants and boots. Bring safety glasses & hard hats (bike helmets OK for kids). This is a yearly event and a good chance to meet mineral collectors from many other clubs as they seek elusive light blue fluorite. *Leader – Bill Chapman* 

Where you would like to go in November? There are probably still a few weekends remaining before the ground turns white.

### SHOWS and OTHER EVENTS TO KEEP ON YOUR RADAR in the next 2 months

- October 17 (Saturday) WCGMC Workshop is open starting at 10 AM. Bring your summer finds to cut and polish and share with others (see page 1 for details)
- October 24-25: Rochester Gem, Mineral, Jewelry, and Fossil Show and Sale: Main Street Armory in Rochester, see page 3 or visit <u>http://www.rochesterlapidary.org/show/index.htm</u> for details.
- November 7-8 Stamford (CT) Mineral Show, 90 Harding Road, Old Greenwich, CT Visit <u>http://stamfordmineralsociety.org/</u> for show details and directions

Last month we tested your mineral and fossil IQ. Here are the anwers for specimens, all were collected this past year on WCGMC trips.



Allanite Benson Mines



Strophemenid Brachiopkod, Rochester Shale



Wavellite Mt. Pleasant Mills, PA



Pleurodictyum americanum, Hamilton Group



Tourmaline

(var. dravite)

**Powers Farm** 



Titanite (aka sphene) Eganville, ONT



There is not much Linda does not collect in the rock and mineral world. This year she featured her collection of polished eggs in her exhibit. Of course, there is always room for an overflowing basket of larger Herkimer diamonds.

### Wayne County Gem & Mineral Contacts

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Club meets 2<sup>nd</sup> Friday of each month starting in Sept. Mini-miner meeting at 6:30 PM. Regular meeting at 7:00 PM Park Presbyterian Church, Maple Court, Newark, NY **Website –** http://www.wcgmc.org/

Dues are only \$15 individual or \$20 family for a full season of fun. Send to WCGMC, P. O. Box 4, Newark, NY 14513







Wayne County Gem and Mineral Club P.O. Box 4 Newark, New York 14513