# Wayne County Gem and Mineral Club News

*May, 2022*

**Always Looking for Places to Dig!**

*from here* ----------→

http://www.wcgmc.org

***FACEBOOK link***

*…… to there (see page 5)*

## Next Club Meeting

**Friday May 13th , 7:00 PM.**

**Park Presbyterian Church,**
**Maple Court, Newark, NY**

**Program: The Fossils of Aurora, North Carolina**

**by Fred Haynes**

Everyone who attends the May meeting will have an opportunity to search for microfossils (including shark teeth) in Miocene gravel from eastern North Carolina. ***See page 3 for more detail, and bring your hand lens or magnifying glass to the meeting!***

## Saturday Club Workshop

**May 21st**

**(10:00 AM until mid-afternoon)**

**Where: 6676 E. Port Bay Rd, Wolcott, NY**

Eye protection is required.
Training on equipment
$5/adult to offset workshop costs.

## Other Upcoming WCGMC Events

**May 14th** The Che-Hanna Rock and Mineral Club has invited us to join them on their fossil collecting trip to the Deep Springs Road Borrow Pit in southern Madison County, New York. We will plan to meet at the site (N42.758859, W75.61331) at 10:00 AM. Contact Bill Chapman (607-868-4649) for additional details and to learn of any changes. Those looking to carpool may be able to make those plans at the club meeting on Friday the 13th. Collecting is in the Devonian Windom shale. Brachiopods, gastropods and bivalves are abundant and if you are lucky there are trilobites to be found there also.

**May 20th** This is a make-up from the rain/weather date in April. And yes, this is a Friday, but also a unique opportunity to look for eurypterid parts in a stream bed on the east side of Lake Cayuga. We will meet mid-morning at a site near Montezuma NWR and carpool about 10 minutes to the location. For details, attend the May 13th meeting or contact Stephen Mayer (StephenMayer054(at)gmail.com)

**August 20th** Mark your calendars. It will be picnic time again outside the workshop in Wolcott. This is one of our premier events of the year, along with GemFest and the Christmas Party. It is a great opportunity to share a day with club members. Watch for details in future newsletter.
The club Vice-President Holly Woodworth (autum14513(at)yahoo.com) is the picnic leader this year.


Here we are in May with sunshine and (hopefully) no more snow until the Fall, and I'm finding that I've been itching to get out my hammer and buckets more and more as the days go by! We had a solid turn out for the April 1st opening day at Ace of Diamonds, and despite the lack of new material (commercial mining is still on hold); everyone was able to come away with some lovely water-clear crystals. Some folks did find some very nice ones as well, and I probably should have paid less attention to that and more to where I was swinging my hammer.....friendly reminder - always use the buddy system and carry a first aid kit when rockhounding.

Speaking of field trips, I know we haven't published a comprehensive schedule for this year yet but I know Bill Chapman is working on putting together a couple of local digs this season, Jeff Wilkins has volunteered to lead an Adirondack trip later (probably in September), and I'm planning for a New England trip (probably New Hampshire) in early August. If anyone else would like to organize a field trip, please feel free to step up and we'll guide you and help you learn how to lead them! We'll also be passing around sign-up information for the field trips at the meetings to try to collect contact information for interested parties, and will post other details as they develop.

We do have another great opportunity to add new (well, technically *very old*) rocks to your collection with the much-anticipated return of GemFest this year coming up in a little over a month! Please try to plan some time the weekend of June 4th and 5th to volunteer for a few hours to help the club make the grand re-opening of GemFest a huge success. We'll also have work to be done on Friday, June 3rd helping with the show setup, so those of you who have Fridays open, please feel free to chip in then. There's something for everyone to help out with, whether it's setting up tables, helping with demonstrations/kids' activities, filling grab and sluice bags, tearing down after the show closes, or a host of other items; so please throw your hat on the volunteer list.

There are fliers on the website for GemFest, so please feel free to share the information by printing, posting, emailing, blogging about, or otherwise spreading the news to anyone you know that likes rocks, fossils, minerals, shiny things, learning things, or ogling our members' impressively designed display cases. We'll have Jerry Bastedo with his dinosaur and fossils for the kids, the full complement of arts and crafts that we always do (including activities for kids), door prizes, the sluice, many fantastic dealers. It will certainly be a good time for all who attend.

Our May meeting will be featuring fossil-rich gravel with some history, context, and information provided by Fred Haynes (see elsewhere in this newsletter). Everyone will receive a sample of the gravel to go through and pick out fossil specimens! It'll be both an educational and interactive event, so come on out to the second-to-last monthly meeting before summer.

I look forward to seeing everyone again soon at the meetings, workshop, GemFest, and field trips! Enjoy the nice weather, and take advantage of it to get out there and find some new treasures!

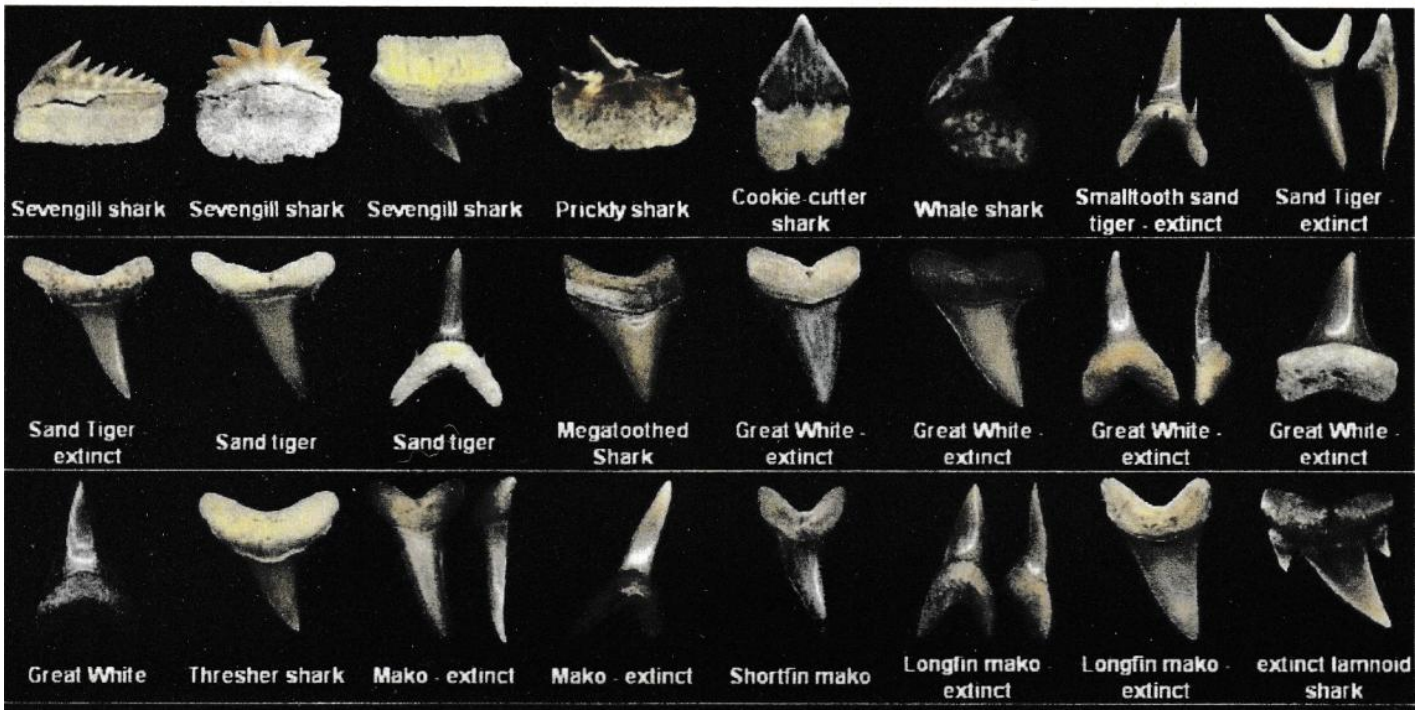

The Aurora Phosphate Mine, operated by Nutrien Corporation outside Aurora, North Carolina provides a unique opportunity for geologists and paleontologists to study the diversity of marine species over recent geologic history. The mining operation seeks to exploit phosphate-rich units in the middle Miocene Pungo River Formation, but exposes younger Pleistocene and Pliocene sediments in the quarry.

Collecting in the quarry is no longer possible, but the Nutrien Corporation partners with the Aurora Fossil Museum to provide coarse (fine gravel) material to the museum which is stock-piled outside the museum. The material contains fossil shark teeth as well as a host of other microfossils. Visitors are allowed to collect from this material.

WCGMC has obtained a few gallons of this material and it will be available for members to search at our May meeting. After a brief presentation by Fred Haynes on the geology of the region and the fossils that can be found, everyone will be given some gravel and will have their chance to find fossil teeth and other fossils. The Aurora Fossil Museum has provided us with a guide to the shark teeth and other fossils we might find (see below). Perhaps we will be able to identify some of the shark teeth and other fossils we find.

The fossils are usually black, but can be streaked lighter colors. The black is from phosphate minerals that have replaced the original material. Some of the black fragments are bone material from other marine animals.

**Aurora Fossil Museum**
Fossil Identification Sheet
400 Main Street/ PO Box 352, Aurora, NC 27806
252-322-4238 www.aurorafossilmuseum.org




**Some from the list of fossils shark teeth that can be found in the Pungo River gravel.**

# The Rocks that Built Western New York

We thank Tyler Lucero for his wonderful presentation last month about the wonderful rocks around us that have been used to build western New York. One of the premises of Tyler's presentation was that "what is built depends on the resources that earth processes have provided." And, he quoted American industrialists Ariel and William Durant to further develop this point. They are credited with this simple, yet profound 5-word statement: "Civilization exists by geologic consent." This did not take much convincing for the WCGMC crowd of rockhounds.


**Tyler Lucero and an attentive group of rockhounds at our April club meeting.**


**Just a few of the local cobblestone buildings Tyler discussed.** He showed us many more and told interesting historical stories about them all.

Tyler also leads geology walks in and around Monroe County that focus on the interaction of geology with human history. You can catch up with his schedule of events through the Rochester Brainery: https://rochesterbrainery.com/collections/tyler-lucero. Several are scheduled in May.

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## WCGMC April Workshop


**I take my job as club photographer seriously and then someone like Scott comes along and photobombs.**


***Helping others is part of being a WCGMC member.***

*More workshop pictures on page 7*

# My Newest Sphere: Larvikite

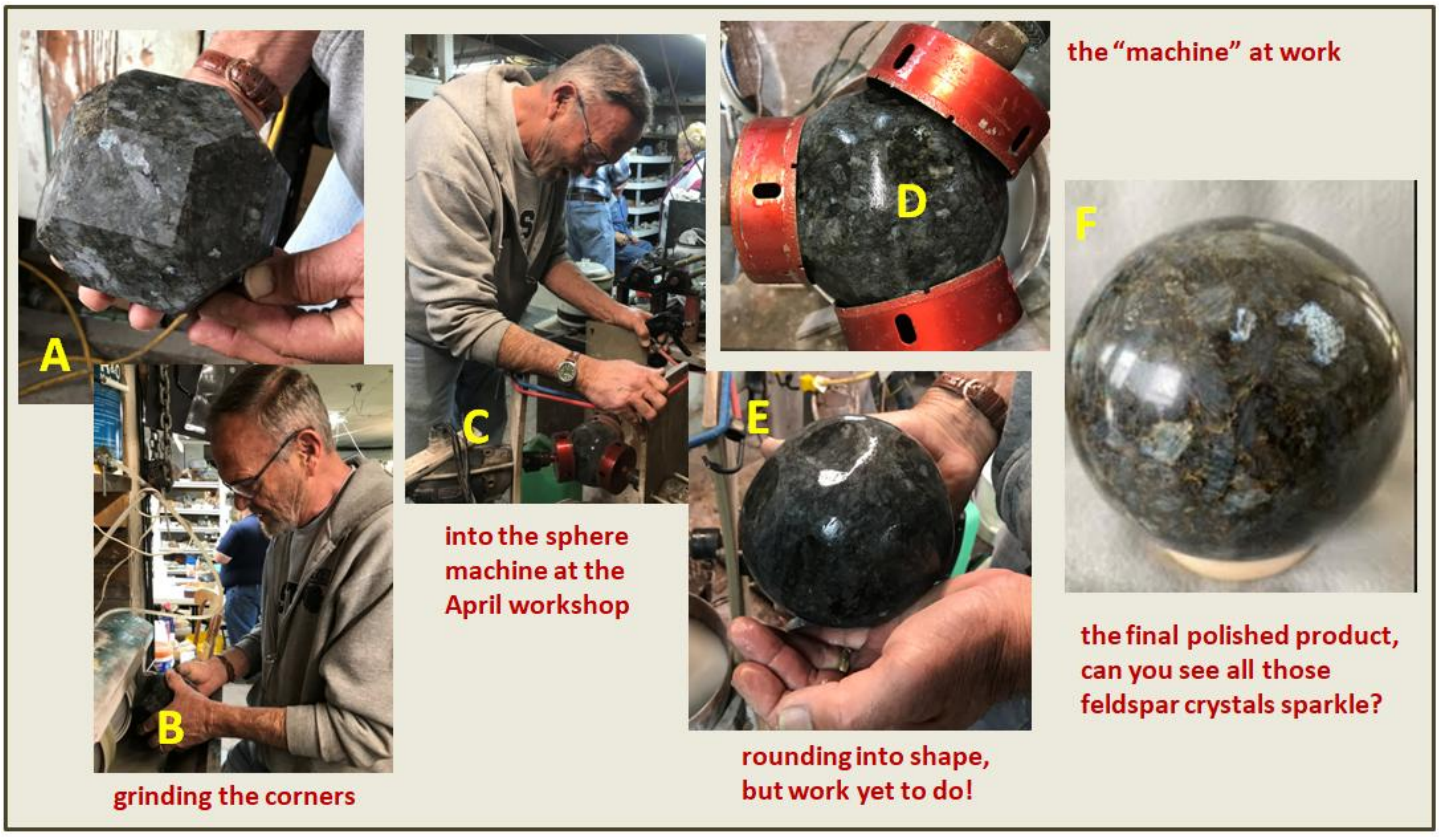
by Bob Linderbery

As many of you know, I enjoy the hunt for large rocks that can be made into colorful or otherwise interesting polished spheres and also the actual creation of the sphere. This winter I have been working on a rather unique rock collected along the Lake Ontario shoreline. It is a dark intrusive igneous rock with large interlocking feldspar crystals that show a modest schiller or reflection when polished. I had found a small piece myself, but it was not really large enough for a sphere. But when I showed it to Glenn Weiler, he had a much larger one that he had found, also along the lake. We negotiated a trade and then I went to work with the club's saws and the wonderful sphere machines that Glenn has built.

Although the rock looks a bit like anorthosite, the color and the interlocking, rhombohedral, gray feldspar crystals display a texture that is unlike Adirondack anorthosite or rocks from similar igneous complexes found in Ontario or as glacial erratics in western New York. Rather, we believe it is larvikite from Telemark Fylke (County) in Norway. Apparently, ships crossing the Atlantic in the 1930s and early 1940s to pick-up shipments of wheat and other grains commonly used larvikite as ballast on the journey to America. This rock was dumped along Lake Ontario to make room for the grain shipment back to Europe (Dietrich, 2010).

If it is larvikite, it is from a Permian age igneous rock composed almost entirely of feldspar from a coastal location about 80 km (50 miles) south of Oslo, Norway. In compositional terms, larvikite is a monzonite, a quartz-deficient igneous rock with more or less equal amounts of potassium and sodium present in feldspar. The directional texture of the individual rhombic-shaped feldspar crystals is solely magmatic in origin (i.e. no deformation or metamorphism). In fact, it is this textural difference that characterizes larvikite and helps to distinguish it from anorthosite (Bräulich, undated webpage). The feldspars are actually anorthoclase, an unusual mix of potassium feldspar and albite plagioclase where potassium and sodium (and sometimes a little bit of calcium) are contained in a single feldspar mineral.

*(story continues on next page)*



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Regardless of the origin of my rock or the exact composition of its feldspars, I set out a few months ago to produce a sphere from the large boulder Glenn had carted home. The letters in the following discussion refer to the images on the previous page.

After cutting a cube with the club's largest oil-based rock saw, I cut off the corners (A). Fred told me I should stop there and label my specimen as larvikite garnet. But I did not listen and proceeded to use the coarse grinder to round the corners (B). Then it was time for the coarsest sphere grinding wheels (C and D) in Glenn's arsenal of sphere-making equipment. As of the April workshop my sphere was "rounding into shape" (E). I have since completed the project at home (F).!

This is my largest sphere to date. With a circumference of ~14.73" I remember enough math to divide by 3.14159 to determine that my sphere has a diameter of ~4.69". But I checked this also with a caliper. The thing weighs a whopping 5.27 pounds. Although my largest in size, this is not my heaviest sphere. The cobalt arsenide-rich sphere (pictured to the right) that I cut and polished from a piece of silver ore collected in Cobalt, Ontario weighs 7.3 pounds but is only 4.06 inches in diameter. I now need a new rock to make into a sphere. It need not be bigger than these, but it does need to be interesting.

**Acknowledgment:** I'd like to thank Fred Haynes for inserting his geologic knowledge and his editing and photo design skills to create this story. He is giving me too much credit by not including his name in the byline.

**References:**

Bräulich, M., undated entry, Larvikite,:
https://www.kristallin.de/Norwegen/Larvikit/larvikite.html

Dietrich, R.V., 2010, Larvikite, webpage:
http://stoneplus.cst.cmich.edu/larvikite.htm

Stephen Mayer collected and then prepped this 1.5" long *Dalmanites limulurus* trilobite from the Rochester shale of the Silurian Period. Although the cheeks and glabella are partially lost from the top of the cephalon (head), this is more than made up for by the well preserved eyes. Both the pygidium (tail section) and the thorax (mid-section) are complete and perfectly preserved.

# Splendid Sands Calendar

**May, 2022**
**Moonstone Beach, Cambira, California**


**Photo by Leo Kenney**

**by Leo Kenney, Kate Clover & Carol Hopper Brill**

Moonstone Beach, part of Hearst Sand Simeon State Park, is located on the scenic central coast of California near Hearst Castle, north of San Luis Obispo on Highway 1. The park is also within the Monterey Bay National Marine Sanctuary. The shoreline is made up of sandy coves separated by rocky headlands and sandstone bluffs. It is an area with geologically complex fault and folds.

The jumble of grains appears brown to the naked eye, but is amazingly colorful when magnified. Many of the rock types seen in this sample originated offshore and are associated with intense past and current tectonic activity along the western coast of North America.

The smooth and naturally polished grains include dark volcanic rocks (basalt) which have been metamorphosed to greenstone. Also seen here are radiolarian chert, greywacke,and serpentine, along with both angular and rounded quartz and feldspar grains. The “moonstone” for which the beach is named is the pearly and opalescent orthoclase feldspar locally known as Cambira moonstone


# WCGMC April Workshop


**Nancy is back from Arizona.**



one member was caught advertising

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**MUSEUM OF THE EARTH INSECT EXHIBIT**


Club members who visited the Museum of the Earth on our January field trip may recall that a new exhibit featuring insects was being installed. That exhibit is now open at the museum in Ithaca.

# Wayne County Gem & Mineral Contacts

## ELECTED OFFICERS

President – James Keeler
jamesrocks(at)jkeeler.com
Vice-President – Holly Woodworth
autum14513(at)yahoo.com
Secretary – Beth Webster
Treasurer - Bill Lesniak

**Board of Directors**
Bob Linderbery
Heidi Morgenstern
Karen Wilkins
Ed Smith

Past President – Linda Schmidtgall

Visit us on Facebook:
**https://www.facebook.com/groups/1675855046010058/**

**APPOINTED POSITIONS**

Bill Chapman – Field Trip Chair
Stephen Mayer - Fossil Field Trip Leader

Fred Haynes – Newsletter Editor
fredmhaynes55(at)gmail.com

Bill Lesniak – Website Coordinator
Glenn Weiler – Workshop Coordinator

Linda Schmidtgall – Collection Curator

Fred Haynes – Facebook Administrator
Jim Rienhardt – Sand Chapter

Club meets 2nd Friday of each month starting in Sept.
Social 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. Renewal is in October. Send to:
**WCGMC, P.O. Box 4, Newark, NY 14513**