



August 2024 issue

Note: there is no regular meeting in August. The next regular meeting will be on THURSDAY, September 19 at 6:30 p.m. at the VFW Post at 3400 Veterans Drive in Traverse City. Sunday, August 18 is our annual club picnic. Please see more information later in the newsletter.

The September 19 meeting will feature a short program by the Pebble Pups and the main program will be “The Green River Fossil Fish Formation in Wyoming” by Jenny Bowen. A special door prize event will take place at the meeting!!

The next regular meeting of Pebble Pups will be in September. The summer features some field trips and other events.

July Highlights

The July 18 meeting featured Eric Hallman speaking about Petrified Wood for the short program and Deb Bull presented “Rare Earth Minerals” during the long program.

41 members were present and enjoyed the programs and the door prize drawings. Officer reports were given including some upcoming field trips. The Tailgate Sale was postponed to next year.

Food Pantry Donations

Lorna Coe and Jim and De Elder would like to thank all that have brought items for the food pantry and clothing donations. Due to the success of the program, it will continue at every meeting. Non-perishable food items (no expired dated items, please), personal hygiene products, children’s new underwear, sizes elementary to teens, are welcomed. An additional item of need is toothbrushes and toothpaste. As an added incentive, every time you donate items, put your name in the hat for a drawing, which will take place at our Christmas dinner.

Rockhound of the Month

Dave Regalbuto was named Rockhound of the Month for his willingness to become the new Field Trip Coordinator.

Upcoming Field Trip and Special Event Information

August 4-11 Keweenaw Mineral Days – Not a club field trip. This is offered by the Copper Country Rock and Mineral Club and the dig events at old copper mines are currently full.

August 18 Annual Club Picnic at John Matz' home

Sept 15 Cranbrook Institute: Behind-the-Scenes Tour

Thanks to GTARMC member Lorna Coe, for putting us in contact with Cranbrook Science Institute curator Mike Stafford, who will lead us on a private 2-hour behind-the-scenes tour of the institute's mineral collection and other exhibits, some of which are not available to the general public. We are confirmed to meet at 11:00 am on Sunday, September 15. Per Mr. Stafford's request, **our group size is limited to 30 GTARMC members**, including Pebble Pups. For compliance with our club insurance policy, you must be a GTARMC member to join the tour. GTARMC is not being charged an admission fee, and we are welcome to bring our lunch. Meet in the semi-circular parking area in front of the southeast entrance to the museum, at the north end of Institute Way. It's about a 3 hour, 45 minute drive from TVC to Cranbrook, via I-75.

How to sign up?

1. At the August 18 GTARMC picnic.
2. Text/call or email GTARMC Field Trip Coordinator Dave Regalbuto:

517-256-4716 (mobile)
dregs9727@yahoo.com

Location and learn more about Cranbrook:

Cranbrook Institute of Science
1 Institute Way, Bloomfield Hills, MI 48304

<https://science.cranbrook.edu>
[Cranbrook Institute of Science](https://science.cranbrook.edu) |

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Sept 28-29 GTARMC Rock and Mineral Show (Sat/Sun)

Oct 19-20 Rockport/Rogers City, MI Fossil Hunting Trip

December 8 Holiday Party (date to be confirmed)

Annual Club Picnic

The annual club picnic will be held on Sunday, August 18, at the home of John Matz, 12142 Peninsula Drive on the Old Mission Peninsula in Traverse City. Social time will begin at 4:00 pm with appetizers and conversation, and the meal will be around 5:00 pm. Pulled pork will be provided by the club. Please bring a dish to pass, your table service, chairs, and beverages. Look for the yellow hard hat on the mailbox. John has also invited those that are interested to come at 3:00 pm to look at some rocks, minerals, and other items that he is selling to club members.

Membership Information

From Cathy Kowaleski, Membership Chair:

You must be a paid member to continue to receive club benefits (participation in classes, outings and receiving club newsletters.) Dues are \$15 Adult or \$20 for a couple, Juniors (8-17) \$5, and those under 8 are free with an adult membership. Make checks out to GTARMC.

Membership dues may be mailed to:

Cathy Kowaleski, Membership Chair
801 S. Garfield Avenue #241
Traverse City, MI 49686

Name badges are an additional \$8 per badge. Thank you!

Facebook Page

Visit the club's Facebook page at this web address. There is also a link on our club website. <https://www.facebook.com/TCRockhounds>

Club Email Addresses

To send a request for classes or workroom time, please send an email request to our club scheduler.

scheduling@tcrockhounds.com

gtarmc@tcrockhounds.com (is our main club email address)

If you have any photos that you would like to share of club events or members, those can be sent to:

photos@tcrockhounds.com or noonanjohntc@gmail.com

To view club photos on Flickr, enter the following web address:

[GT Rock & Mineral | Flickr](#)

Club Member Assignment

To assist the new committee that is looking at potential new locations for our club workroom and classroom, Jim Elder is asking all club members to let him know about possible locations that you may be aware of, that may work for the club. The space should be in the greater Traverse City area but doesn't have to be within the city limits.

A good size for the room would be 400 to 600 square feet and must have a restroom for member use. This would give us adequate space for our equipment and enough room to hold classes.

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The above contact list will be included in each newsletter so that you know who to contact for various items.

GTARMC Pebble Pup Info

More Rock & Mineral Specimens Needs for the Pups

The Pebble Pups need specimens for study and for Steven Veatch to give out at the Pup's meetings and for public outreach events that are staged about 4 times a year. People can contact Steven at steven.veatch@gmail.com or bring them to the meetings for him.

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Here are a couple of photos of the July 21 field trip to Fisherman's Island State Park in Charlevoix.



Next is an article written by Steven Veatch about 'The Pulver Gulch Prospect'

The Pulver Gulch Prospect: A Hidden Reserve of Metamorphic Minerals

By Steven Wade Veatch

As U.S. Highway 24 approaches Wilkerson Pass, Colorado, the 1.7 billion-year-old metamorphic rocks of the Puma Hills replace the younger Pikes Peak Granite. The Puma Hills were formed by the metamorphism of sedimentary rocks that were once oceanic sediments—sand, mud, and clay.

Before the highway reaches the summit of Wilkerson Pass, it goes past the dirt road to the M Lazy C ranch. The ranch road heads north into the hills where forest road 247 soon intersects the winding ranch road, and at this junction forest road 247 bears east, into the deep forest, past the old Pulver Gulch prospect.

The geology at Pulver Gulch is unlike the surrounding area. The sediments at Pulver Gulch contain more calcium carbonate, from impure and muddy limestones, than the surrounding ocean sediments that formed the Puma Hills. These calcareous sediments were heated, compressed, and transformed into calcium silicate rocks that host a group of interesting metamorphic minerals that include scheelite, vesuvianite, wollastonite, grossular garnet, and diopside. The Pulver Gulch prospect's exploratory dump is an excellent place to search for these metamorphic minerals.

Prospectors worked the Pulver Gulch prospect over fifty years ago looking for scheelite (figure 1), a mineral that formed in the metamorphic rocks at the site. Scheelite is an important source of tungsten. Tungsten has many industrial applications, including filaments in light bulbs. Since scheelite is strongly fluorescent, prospectors searched the area with battery powered black lights at night.



Figure 1. Scheelite crystals and muscovite mica showing fluorescence under ultraviolet radiation. Image courtesy of Commons Wikimedia: image released to public domain.

Brilliant brown granular crystals of vesuvianite (figure 2), a basic calcium magnesium silicate mineral, are common here. Short prismatic crystals can also be found. This mineral was named for Mt. Vesuvius, where it was discovered on the slopes of the Italian volcano.



Figure 2. Vesuvianite crystal. Image courtesy of the CSMS blog by Mike Nelson.

Wollastonite (figure 3), a calcium silicate, occurs as milky-green masses of needle-like crystals at this site. Some of the massive specimens are larger than a football. This mineral is faintly fluorescent. Wollastonite is used as a component in refractory or heat resistant ceramics and as a filler for paint.



Figure 3. Wollastonite with diopside (green), garnet (red) and vesuvianite (dark brown) from the Stanislaw mine near Szklarska Poreba, Izerskie Mountains, Lower Silesia, Poland. Image courtesy of Wikipedia.

Thick, banded layers of brown grossular (figure 4), a member of the garnet group, are associated with wollastonite at the Pulver Gulch prospect. These garnets also formed from the impure limestones and occur here in a massive and granular form.

By breaking open the host rocks on the Pulver Gulch dump, well- developed microcrystals of dark green diopside (figure 5) are exposed. The diopside crystals, a calcium magnesium silicate, are embedded in sparkling white calcium silicate



Figure 4. Garnet crystals from the Jeffery Mine, Quebec. Image courtesy of Canada Bureau of Mines, specimen C-01687.

rocks. These specimens of diopside can be interesting to micromount collectors.



*Figure 5. Diopside crystal from De Kalb, New York.
Image courtesy of Wikipedia.*

Today the Pulver Gulch dump is largely undisturbed. Occasionally a small group of geology students from Colorado College will stop by the dig site to study the local geology in this peaceful part of the Puma Hills.

References:

Chesterman, Charles, 1978, *The Audubon Society Field Guide to North American Rocks and Minerals*, Alfred A. Knopf, New York.

Chronic, Halka, 1980, *Roadside Geology of Colorado*, Mountain Press Publishing Co, Missoula.

Mineral Galleries, World Wide Web homepage URL:
<http://mineral.galleries.com/minerals/silicate/vesuvian/vesuvian.htm>

Wobus, R.A., 1997 (Williams College) personal communication.