Wayne County Gem and Mineral Club News

April, 2020

Always Looking for Places to Dig!

Another outreach event (see page 6)

http://www.wcgmc.org

FACEBOOK link

Bowling Ball Beach (see page 4)

Our April Meeting is canceled and there is no April Workshop scheduled.

May 8th meeting is tentatively still on our schedule.

There are no Saturday workshop dates scheduled. As soon as it becomes safe to reconvene at our Wolcott workshop, we will re-schedule and inform everyone.

Who knows what this is? *see page 5*

Editor's Challenge

We cannot meet in April. We cannot collect together in April. Heck, you don't even need to do your taxes in April now! However, with this extra time, we certainly can work with the rocks, minerals and fossils (and sands!) that we all have acquired on previous trips or at club sales. We can finally sort through that box or rocks collected last summer (or six summers ago for that matter). You know, the one in the back of the garage or the far corner of the basement. We are told to repeatedly wash our hands. Why not wash rocks at the same time?

So, here is a challenge to all of you. Pick out some minerals, rocks, or fossils from you collection and do something with them. Clean them, organize them differently, read online about them, have a conversation with them, or create with them in the garden. Then sit down and write about what you did, why you did it, and what you learned doing it. Take a picture (that counts for 1000 words). **Then send it all to me.**

Don't tell me you cannot write. I've heard that before and then I get a perfect paragraph (or more) from that same person. Just peck away into an e-mail and send it to me. You will not be graded! If I receive enough contributions, I will create an additional newsletter in April: a "what I did while social distancing" issue. We may not be able to meet this coming month, but that does not mean we cannot continue to enjoy our hobby and communicate with each other. I hope to hear from several of you.

President's Message

Linda Schmidtgall

I hope this finds everyone healthy and virus free. I don't know about you, but all this social distancing is really hard for me. The snow is gone (we hope) and spring is here and I want to get out and about. I want to collect rocks! I sure hope all the smart people in this world figure this out fast and we can get back to business as usual.

We were able to squeeze in our March meeting just as the clamps came down on most social activity. James Keeler jumped in to give a presentation on labradorite and we raffled off the Michigan rocks that we had traded with the Copper Country Rock and Mineral Club of Upper Michigan. That went over so well, that we will actively seek other clubs to trade "boxes of rocks" with. Seven members brought minerals to add to the next trade and their raffle numbers were called first. Others can get to the head of the list if they bring minerals to any subsequent event. **If any other club is reading this and has an interest in a trade, they should contact me.**

The table of rocks acquired from the CCRMC ready for raffle: many native copper specimens, but a lot more too.

Scott Jones' name was drawn for knowing the mineral of the month (stibnite) and he won a nice red agate slab. Nancy Guilfoyle had sent a box of rocks from Arizona and Gary Thomas had those. We gave away some more River Valley polished garnets and Glenn reported that he has completed building a new "chop saw" for the workshop. He'll show us how it works next time we are able to get together there.

I was sure hoping hope we could meet in April to hear Stephen Mayer's talk on echinoderms (see last newsletter). Now, I hope we can do that in May. We will treat future scheduling just like we do for snow days. Watch Facebook, visit the webpage, or contact Bill Lesniak, Fred Haynes or me for updates. If we must cancel, we will send out an e-mail to the membership list also. Man, I don't want to have to do that!

With all the cancelled events and with more time at home are you looking for something to do? I have an idea. Let's flood Fred with stories and pictures for the next newsletter. Tell him what you like best about rocks, minerals, or fossils. Tell him your favorite lapidary project or stone and why. Send him a picture of something you like. You don't need a polished product. He'll fix it up and make it read well. I know, he does it for me every month!

Linda

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WCGMC Monthly Contest

Don't forget: Somewhere in this newsletter you will find a statement that reads **"The special mineral/fossil/geologic term for April is xxxxx"**. Find that statement, remember the mineral or fossil listed, and come prepared to enter a raffle at the next meeting to win a fine prize. Don't share the code word or your chances to win will be reduced!

By Fred Haynes: On February 23rd, I gathered about 100 of my sands and took them to an outreach event called Winterfest at Mendon Ponds Park in Rochester, NY. I set up with the Rochester Academy of Science right between the mineral exhibit (which you can see by the cobblestone wall) and the fossils (which are to the right). The young boy is looking at My Google Map depicting the locations of where the sands come from while his sister shows off the small sample of garnet sand I gave to about 40 kids. The arrow on the table is pointing to a tall container of garnet sand from Hamlin Beach in Lake Ontario.

The WCGMC Sand Page / Herkimer Sand

by Fred Haynes

On April 1st, WCGMC was planning to open its 2020 field season with a visit to Ace of Diamonds in Middleville, NY. This annual rite of passage is not possible this year, but we can spend time enjoying the Herkimers we have collected on past trips.

For most folks these are small- or modest-sized crystals collected from the piles of rock the owners have hauled from their active, off-limits, mining area behind the hill. And I certainly spend time digging and breaking large rocks in search of centimeter or inch-sized diamonds. But, when the club visited last October, just before the site went into its annual hibernation, I did something a bit different.

In front of the high wall where folks can "stake" monthly or seasonal claims is this sluice with running water and two sorting tables.

I dredged a portion of the sluice, recovering the fine material that had passed through the sieves being used by collectors looking for gravel and larger sized "diamonds". I used a 3.0 mm sieve to remove gravel and then the water and a 0.15 mm sieve to remove silt and clay.

I came home with half a bucket of sand that was mostly dolostone, BUT not completely.

You probably cannot see the sparkly little quartz crystals in the previous picture, but when subjected to magnification the crystals are very evident.

The field of view (FOV) in this picture is 5.0mm across so this would be classified as a coarse grained sand. This photo was taken with a zOrb 65x digital microscope.

I had processed only a small amount of the 2-3 gallons that I collected and I could see that it was full of mm-sized Herkimer diamonds. To capture two Herkimers in the same FOV, I did push the second grain a bit, but these were by no means the only ones present in the 20 ml of material I was investigating. The cloudier white mineral just above the larger Herkimer is a cleaved calcite grain. Pretty neat, eh?

But I was not done. I have traded this sand multiple times over the winter as it seems to be a popular one for other arenophiles. It is most certainly not your garden variety carbonate sand! One trade was to Leo Kenney, an arenophile and photographer from Massachusetts. Leo is the photographer for the popular "Splendid Sands" calendar and soon after receiving his 30ml baggette of Herkimer dolomite sand he sent me a few digital photographs.

The FOV in this photograph by Leo Kenney is about 12mm. That Herkimer in the lower left is to die for. Zoom in and marvel at the the clarity of the photo while trying to count the faces!

Bowling Ball Beach, coastal California

by Fred Haynes

Given the circumstances, we are not yet actively planning field trips this spring, but that does not mean we cannot take some virtual trips. For starters, let's visit Bowling Ball Beach in northern California and learn a bit about the huge concretions scattered along the beach. They call them bowling balls, but they look more like small moons to me.

Point Arena, California is part of a small sliver of land sticking into the Pacific Ocean about a three hour drive north of San Francisco. Just a few miles south of Point Arena the Pacific Coast Highway passes Schooner Gulch State Park where a short hike down to the Pacific Ocean allows easy access to an extraordinary accumulation of spherical concretions on what is called Bowling Ball Beach (Figs. A and B)

Those of us who walk the creeks in western New York are familiar with the erosion–resistant concretions which can be found littered along some streams beds or exposed in the Devonian rocks (~360-420 million years old) cropping out along streams. The concretions on Bowling Ball Beach are much larger and the host rocks significantly younger. The concretions reach three feet in diameter and the host rocks are Miocene in age (20 million years). The sedimentary units owe their origin to turbidity currents that periodically carried sediment out into the Pacific Ocean along underwater channels.

In the past, theories involving dinosaurs, aliens, and a host of other wild ideas were forwarded to explain how the oversized concretions formed. Today we know their origin involves a simple sequence of geologic events. The concretions are restricted to a single sandstone unit within the Galloway Formation, which is pointed out in the cliff face in Figure A. They formed when silica-cement nucleated and grew concentrically outward. If this process had been allowed to run to completion, a hard, fully-cemented sandstone would have formed. But, full cementation did not occur. Rather, the unit was uplifted and the entire sequence was turned on its end such that the Miocene units are now positioned vertically in the cliffs behind the beach. Since the sandstone host is not fully cemented it is less resistant to the relentless erosional forces of the Pacific Ocean, and the 2-3' diameter concretions rest in full view on the beach.

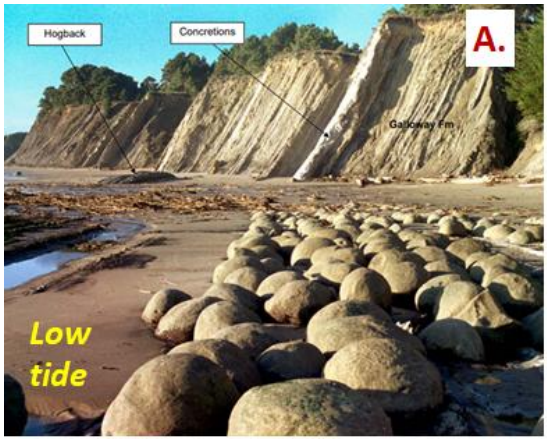
The entire Point Arena region is in itself an interesting geologic occurrence. The cliffs along the beach represent a thin sliver of Miocene sediments caught on the west side of the San Andres Fault (Figure C.). The sliver is less than 5 miles wide and extends only 50 miles along the coastline. With time, the daily onslaught of the Pacific Ocean and the periodic left lateral movements along the San Andres Fault will remove this sliver of land while moving it northward. In just the last 500,000 years the cliffs and the concretions have been moved about 7 miles northwest by movement on the San Andres fault (Konigsmark, 1995). But don't worry, they will still be there if you decide to visit northern California. But do check the tides, the rocks become submerged during high tide.

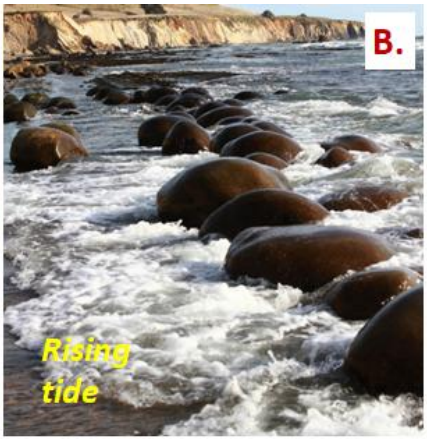
References:

Bowling Ball Beach, 2009, Geologictrips.com/bbb/bbb.pdf, 14 p., author unknown

Konigsmark, T., 1995, Geologic Trips, Sea Rand and Bowling Ball Beach, GeoPress, 65. P.

For more on concretions, see page 5





More Concretions

How many of you noticed that the stamp depicted in the title box on the Bowling Ball Beach story on the preceding page was from a location in New Zealand? Did you wonder why it was there in a story about a California beach? There is no reason except that your editor collects geological themes on stamps and has that one in his collection. So far the US has not issued a stamp of Bowling Ball Beach! But now that we know that, perhaps we should look into those "bowling balls" concretions down under.

The Moeraki boulders are found on a beach on the southeast end of New Zealand's South Island. They are considerably older than the California "bowling balls", forming in 60 million year old mudstones. The two occurrences are similar in that they grew in marine sediments which have been later exhumed by coastal erosion, but that is where the similiarities end.

The New Zealand concretions began with an organic nucleus such as a leaf, cone or fish bone, and they are made of calcite, not quartz, They are indeed enormous septarian nodules (aka turtle stones). Most have undergone significant internal fracturing that radiates from a hollow core. The fractures are filled with a layer of brown calcite which is often overlain by a yellow calcite spar. Occasionally, open space permitted crystalline growth as well. They can reach 2 meters (6') in diameter!

This Moeraki boulder is 1.5 meters in diameter. I wonder if the other half is under the sand.

Photo from Lin, 2017.

Reference:
Lin, 2017, Moeraki Boulders – Spheres of Nature in Otago, New Zealand, in Historic Mysteries online

Hogbacks

Now, how many noticed the tiny label in Figure A of the Bowling Bowl Beach story that notes a hogback. Do you know what a hogback (sometimes called hogsback) is? It is actually a geologic term describing a narrow ridge with steep slopes of nearly equal inclination on both flanks. Typically the term is restricted to a ridge created by the differential erosion of outcropping, steeply dipping, sedimentary strata. The drumlins of Wayne County fit the shape, but not the origin. The small feature cropping out through the beach at Bowling Ball Beach fits the definition perfectly. Here is a close-up:

Hogback on Bowling Ball Beach

(Photo from, Geologictrips.com/bbb/bbb.pdf)

The special geologic term for April is hogback!

Wayne Central Elementary Science Fair

by Kathleen Cappon

On March 12th, I represented WCGMC at the Wayne Central Primary/Elementary Science Fair. Despite the current health situation and the possibility (which became reality) of schools closing in weeks to come, the event was packed with parents, kids and a lot of fun activities!!

Thanks to the efforts of the coordinator, Diane DiGravio, the Fair went smoothly and was well attended by the community. Our club display consisted of two tables with fossils and minerals from New York State. One table had ribbons going from the rocks to the locations where they were found. The map was highlighted with all of the places our club has visited in the state.

Kathleen Cappon behind her table of New York rocks, minerals, and fossils

The second table had other minerals and fossils plus some specimens that included the State fossil (the *Eurypterid* or Sea Scorpion) and the State gem (garnet). Again, this year, the most popular and talked about item in the display was the *Eurypterid* AND….of course, the coprolite !! Several fossil and gem books were on the table along with sign-up sheets for club membership. One half of the table displayed the tools used by rockhounds. Many of the kids enjoyed putting on the vests and the hard hats.

This young collector is ready for the quarry.

Below the tools were two bins: one was full of assorted minerals and the other of our famous Devonian horn corals for all to take home! Many parents were interested in joining the club and took applications. Dozens of people took home information about Gem Fest (let us hope that event can be held as scheduled in June!). At the end of the evening, the "take home" bins were empty so things seemed a lot lighter as I packed up the car to drive home. As always, it was a rewarding experience for me.

If you follow us on Facebook (and why wouldn't you?) then you may have seen Jay Teeter post this on March 10th. It is a picture from the mid-1980's. Jay is beside his father and that is Ken Rowe with the red hat. And yes, that is the sign you see at GemFest each year!

Wayne County Gem and Mineral Club Schedule

last update March 23

By this time in past years, this page is filled with WCGMC collecting plans and other events. For several years, we have managed to have some type of collecting event in every spring, summer, and fall month and often more than one. Unfortunately this year is not like past years.

We have elected to pretty much clear out our schedule completely and will rebuild it when it becomes possible. For now the two-week trip in September remains on the list, but nothing is being done to actually plan the trip. When we are able to next meet we will ask who is interested and start planning.

We have cancelled all April activity and the May meeting is listed as tentative. There are no workshops scheduled. We will be sure to notify everyone when it is possible to hold one again.

GemFest in June is obviously on our collective minds. At this point, we do not need to make a decision for an event that is still more than two months ahead. As the calendar churns through April we will be better positioned and informed to make those decisions, or they will be made for us.

All April events are cancelled

May 8th monthly meeting -- Tentatively still in place

No workshop dates: we'll reconvene when we can and will make sure all know

JUNE 6-7: GemFest in Canandaigua (June 5th is set-up day). We'll stay hopeful for now.

Tentative: An August Saturday Picnic, probably late in the month

September 12th- September 26th – Two week trip around Lake Superior. Ask us.

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Let's Congratulate Our Friends at The Dolomite Group for a Century of Operation

If you follow us on Facebook you will know that Alyssa Johnson from the Montezuma Audubon Center in Savannah noted the importance of March 15th this year for one of our favorite quarry operators. With headquarters in Rochester, The Dolomite Group operates about fifteen quarries in Monroe and Wayne Counties supplying aggregate for a variety of needs. Yes, both Penfield Quarry in Monroe County and Walworth County in Wayne County are operated by The Dolomite Group. The annual open houses these two quarries hold for fluorite-seeking rockhounds are highlights of our collecting seasons and we are forever grateful to the Dolomite Group personnel at each location for their hospitality each year. Well, this past month the company celebrated their 100th year in operation, having obtained their initial operating permit on March 15th, 1920. Their first quarry was in Gates in 1920, but Penfield was not far behind, opening just 8 years later.

Did you know that Dolomite Products was the first company to use trucks to haul stone to the processing plant? They sure have come a long way in a hundred years. Photos from The Dolomite Group webpage and Facebook page

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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