

THE CAPITAL ROCKHOUNDER



Publication of the Capital District Mineral Club, Inc.
Chartered by the Education Department of the State of New York
P.O. Box 12814, Albany, New York 12212-2814

August 2006

Next Meeting

There are no meetings from July-Aug. Please come to the next meeting on September 7th..

August Field Trips

Please note that you must make reservations with trip leaders ahead of time if you plan on attending a trip. Also please arrive at the location when specified. Most trip leaders will not wait for you, and it is not fair to the other field-trippers to ask them to.

August 5. Wild Ammonoosuc River Gold Search. Call Bob Ballard at 518-377-8656 (rballad@nycap.rr.com) to secure a spot. Participants will drive 4 hours to a location in Vermont where they will pan for gold. Please bring goldpan, wading shoes/shorts/bathingsuit, bug spray, sunscreen, etc. Ankle support recommended for in stream (bring a change of shoes). Campground nearby. Most participants will camp overnight Fri-Sun. Please contact the club email at schmanie@albanyrockclub.com if you want to camp with us.

TBA. Barton Mine Scientific Tour. We can put in a tour, but must be on a weekend after Labor Day-Columbus Day. It will cost you a dollar a pound for the garnets that you collect, but no admission is charged. We will get to go to the upper level (better collecting spot). Do we want to do this? Interested parties should contact Bob Ballard at 518-377-8656 (rballad@nycap.rr.com) to discuss the possibilities.

Field Trip Reports

1. Minerva with leader Bob Ballard on Saturday July 15.

It did not look like the best of times for a field trip to Minerva. The warm winter and wet spring meant the black flies would be abundant and hungry. The recent rains meant the Boreas would be running fast. And all week the weather forecast was saying we would be starting the heat wave on Saturday. Therefore I was little surprised to see a line of heavy thunder showers near Syracuse as I checked the weather Saturday morning.

I picked up Jim Palmer, my co-leader and we were off to the Stuarts on Rt28 in North Creek. In all 10 members arrived. The Hardings, with small children, called to say with the expected heat he did not think this was a good trip for children. He was right.

The trip proved to be better than promised. The cloud cover kept

the temperature to the 80s, [the humidity was still high] and the bugs, while annoying, were not as bad as expected. Deer flies were a major problem but DEET even kept them away.

We hiked the tracks to the tall cut. I was not expecting the rock fall. About a 50 foot section of the cut collapsed some time this spring blocking the tracks with car size boulders. Ponderism: As we stood there looking up, everyone wondered, "I wonder when the rest of it is going to fall?". We all got busy trying to bust up the blue calcite looking for the apatites. I had forgotten about this rock. It doesn't break. There are no weak areas. If you hit the calcite with a crack hammer, the blow is just transmitted through the whole rock and the rock doesn't fracture. If you use a chisel, the calcite at the chisel blade powders, but you don't open a crack. The air temperature wasn't bad but the humidity was up and I [and others] got sweaty trying to bust up calcite. The Boreas was up and swift, so collecting at the waters edge, [where the water has exposed the apatites] wasn't possible, despite a good look. Most of us stayed dry. Despite the difficulties, some larger blue and yellow calcite cleavages and some small but clear, sky blue apatites were found, as well as the more common dark apatites and graphite.

I think we all got tired about the same time, so we hiked out with a few raindrops. We then drove to the Tahawas mine. On the way there we got heavy rain showers. Near the gate we found a big boulder of the ore, and thanks to Jim, we all got all the ore pieces we needed. Between showers, we looked for labradorite. Some big crystals were found, but as is the case for Tahawas labradorite, it did not have any schiller. This was too bad as some of the new members did not know what a good schiller looks like. I will bring some labradorite to the first meeting to show people what we are looking for. Here the bugs got as bad as expected [perhaps the rain encouraged them]. The common phrase while labradorite hunting was "I think the insect repellent has worn off".

I think we were getting tired. Some of us went to the McIntyre Furnace. Again, between showers, we saw the furnace [comment on crawling into the center chimney "Wow!"], dam, water wheel, bellows and slag pile. It seems someone has decided to restore? the site. There has been tree cutting and red survey marks made. Some official looking signs saying Do Not Enter, Loose Bricks! have been placed around the furnace and the area cleaned of brush.

I think it was a good trip. At least I did not hear otherwise, or perhaps people were too exhausted to say so.

Bob Ballard

2. July 22. Howes Cave Quarry. Leader Robert Stitham changed the location of the meeting place (another good reason to make sure you contact the field trip leader). Apparently there is no truck stop on I-88 (oh well).

On the way there, with directions provided by Paul Griggs via email...each one of us discovered that the last road sign we needed 'Howes Cave Road' had been turned so that we all went down the wrong road. Luckily for us (but not so lucky for the people on the road), the road in question had 'Road Closed' signs all over it. After each of us went around 2 road closed signs, we each ended up face to face with a road block that went across the entire road. This forced us to turn around and go seek help at the local animal shelter who then told us we were off by one road. This is also a lesson that it is always good to allow extra time when going to a field trip where you have to be there at a certain time.

Participants George Gearhardt, George Drobot, Melana Maracchiarola, Anne Woods, Bob Ballard, Bob Kaufman, Gerry Boileau (better late than never), and Ryan Sapienza met at the stone house at the Cobblekill Stone Quarry (also referred to as Howe's Cave Quarry). Paul Griggs and Ben Guenther (geologists) met us there to begin our tour. They handed out Howes Cave Historical Information which also contained information on the fossils we would find for the day. They then led us throughout the quarry to collect fossils. We collected in four different locations. Each location required that we climb a bit to get to the good ones. We all ended up with numerous fossils and large plates of fossils.

The weather required that we all wear raingear. Some of us discovered that our raingear wasn't as protective as we thought. At one point it poured really really hard. The two geologists felt that was a good time to give us a tour of the inside workings of the mining equipment in the large building that would give us shelter from the rain.

We were also led on a special tour to see the original cave opening of Howe Caverns. This was well lit with electricity, but because of a recent fall, we weren't allowed to go very far inside for our own protection. We all had on hardhats and flashlights...and the ground was very slippery inside the cave.

There was a historical museum there as well. It looked to be still under construction, but they let us in anyways. We just had to take our shoes off first. We were all a bit muddy.

We have been invited back, and plan to attempt for a visit in the fall of this year.

Anne Woods

Rock and Gem Shows (Aug)

Aug. 5-6. Waterville, ME. 36th annual show; Water-Oak Gem & Mineral Society; Mount Merici School, 152 Western Ave.; Sat. 10-5, Sun. 10-4; free admission; Contact Ellery Borow, P.O. Box 47, Waterville, ME 04903-0047, (207) 547-3154.

Aug. 11-13. West Springfield, MA. Show, "East Coast Gem, Mineral &

Fossil Show"; Martin Zinn Expositions; Better Living Center, Eastern States Exposition, 1305 Memorial Dr.; Fri. 10-7, Sat. 10-7, Sun. 10-5; adults \$5, children 12 and under free with adult; more than 200 U.S. and foreign dealers. Contact Martin Zinn Expositions, P.O. Box 665, Bernalillo, NM 87004, fax (505) 867-0073; e-mail: mz0955@aol.com; Web site: www.mzexpos.com.

Aug. 18-20. Lebanon, PA. 9th annual show, "Gem Miner's Jubilee"; Mid-Atlantic Gem & Mineral Association; Lebanon Expo Center, Rte. 72 and Rocherty Rd.; Fri. 10-6, Sat. 10-6, Sun. 10-4; admission \$5; Contact MAGMA, (301) 565-0487; e-mail: beadware@erols.com; Web site: www.gem-show.com.

Aug. 26-27. Canton, NY. 40th annual show and swap; St. Lawrence Rock & Mineral Club; Canton Sportsman's Club, Nickerson Rd.; Sat. 10-5, Sun. 10-4; Bill de Lorraine, (315) 287-4652; e-mail: wdellie@northnet.org.

Aug. 26-27. Freeport (L.I.), NY. Annual summer show; Village of Freeport; Freeport Recreation Center, 130 E. Merrick Rd.; Sat. 10-5, Sun. 10-5; adults \$3.50, children under 12 free with parent; Contact John Anderson, P.O. Box 551, N. Bellmore, NY 11710, (516) 781-8410.

Aug. 26-27. State College, PA. Show; Nittany Mineralogical Society; Mt. Nittany Middle School, 656 Brandywine Dr.; Sat. 10-6, Sun. 11-5; adults \$5, children under 10 free; Contact Bernie Pisarchick, Lodin's Gems & Minerals, 8884 Rte. 219, Brockway, PA, 15824, (814) 265-8887; e-mail: Bernie@Lodins.com; Web site: www.Lodins.com.

EFTA Trips

To book a place on a trip a club member must make the request through Bob Hartig (518-842-5948). The EFTA representative contacts the EFTA representative from the Host Club and makes the arrangements at least 2 weeks prior to the trip. No individual members are to contact the EFTA representatives of other clubs. EFTA representatives vouch for the eligibility of the persons they refer to other clubs' field trips.

Aug. 12. Wayne Co. Gem & Min. Alden, NY. Pyritized fossils and nodules. Contact Bill Chapman at batnpill@ptd.net

Aug. 20. The Saco Valley Gem & Mineral Club. Moat Mtn. Bartlett, NH for smoky quartz, microcline, amethyst, topaz, albite, crystals

Aug. 27. Orange County Mineral Society. Wurtsboro Lead Mine. Dig in tailing in this old classic site of Quartz, Pyrite, Chalcopyrite etc. Long walk to the top of the mountain. Bring a camera for great sites to see. People can attend by Contacting George Gardianos at gggard@otimum.net

Sept. 2. PESA. PA, Monroe Co. Calcite, dolomite, limonite, fossils. 8-11 AM Working quarry rules. 18 and older. No facilities. Contact Merril Dickinson +1 (610) 473-9973

Sept. 9. Lapidary & Mineral Society of Central CT. Clark Hill Quarries, E. Hampton, CT. Simple pegmatite minerals plus schorl, beryl, garnet, apatite, columbite, uranium minerals, zircon, excellent euhedral muscovite crystals. Small abandoned quarries in state forest, no facilities. No limit, see http://www.lmscc.org/clark_hill.htm for rules, club has permit.

Sept. 9-10. Worcester Mineral Club. VAG Asbestos quarry, Eden Mills VT. For Vesuvianite, Grossularite, Artinite, Magaetite, Serpentine & others. No facilities. Contact Larry at Delsjohn@aol.com for details.

Sept. 24. The Saco Valley Gem & Mineral Club. Hurricane Mtn., Bartlett, NH. Smoky quartz, microcline, amethyst, zircon, and arfvedsenite crystals.

Sept. 29. Orange County Mineral Society. Montique, NJ. Collect Quartz xls and small clusters, Limited number of People can attend. This time of the year you can also enjoy the fall colors. Contact for details call George Gardianos at gggard@otimum.net

Sept. 30. Berks Mineral Society Panning for Gold in Southern Lancaster Co. First 20 people. First 20 to register (717)933-5124

Sept. 30. MLRSV. NJ, Warren Co. Calcite, zircon, micas. 9AM-12PM. Working quarry rules. 18 and older. No facilities. EFMLS card required. Contact Dave Rieur +1 (908) 938-5525 or crystalcutz@yahoo.com

Project Stardust

by Don Kauffman

Imagine going on a long collecting fieldtrip, billions of miles into unknown territory. Imagine trying to collect ice (a mineral) or particles of rock material, many just fragmented specimens much smaller than dirt. Your collecting vehicle is shuttlecock-shaped. Your tools include a tennis racket designed to hopefully catch particles traveling at 6 times the speed of a rifle bullet and an aluminum (not Tupperware?) canister to store them for safe return home. Your method of returning your specimens is to hurl a land mine shaped discus toward a patch of desert. In order to collect what may be a proverbial "needle in the haystack", cost of transportation, and tools the total project cost is a real bargain, just a little over \$210 million is required.

This aptly sums up one of our latest deep space enterprises by NASA and the Jet Propulsion Laboratory. Project Stardust became a NASA project success story and space history as of January 15 of this year.

With Stardust our U.S. space program netted one of its biggest successes. Launched in 1999, NASA's deep space Stardust probe made a spectacular rendezvous with Comet Wild2 (say "vilt"). After a 5-year journey, a racket-like grid was extended to collect minute debris composed of ice, rock, and mineral particles and then pull the sticky collector into the pod's interior for safe storage. The other side of the sticky picker upper was used to collect minute interstellar particles. At the same time there was a brief window of opportunity to photo the comet surface. Then the probe began its return over another few billion miles for an additional 2 years in space to reach earth's outer atmosphere.

A "faster than a speeding bullet" 29,000 mile per hour return of canned comet material and interstellar dust from our now permanent extra-atmospheric mother ship was marked by a parachuted soft landing on government property in the Utah desert. (Thank goodness we didn't have Hollywood stuntmen out with a butterfly net under this one. *)

Some millions of samples from comet and interstellar dust said to be uncontaminated relics of our solar system's birth and remnants of the death of exploded or dying stars may tell us something about creation. Put in perspective, we may be once again reminded, how insignificant we are as humans.

As cynical as one may be about government projects, at least we must admit, NASA and JPL money is being spent for increasing human knowledge; not just lining officials pockets out of desire for material human wealth or greed. Cost of Project Stardust was cheap relative to the returns for human understanding of universal beginnings and commercial byproducts of such a project.

For those of us who search for common rock and mineral samples here on earth, and for the teams of scientists worldwide who will spend decades examining probably the most famous micro minerals of this century, it was quite a field collecting trip. No human could, or ever will, be able to make such a collecting trip in a timely, economical or safe manner.

A hearty salute should be sent to mission planners behind Project Stardust from bound to earth rockhounds.

Referral here is to a failed NASA project of similar objectives that crashed at Dugway in 2004. A rather theatrical attempt to catch a falling star probe called Genesis with nets from waiting helicopters resulted in smashed wreckage scattered over the target site.

Sources:

1. "Comet Dust Capsule Lands in Desert", CNN.com. Jan 15, 2006 <http://www.cnn.com/2006/TECH/space/01/15/stardust.ap/index.html>
2. Sparks, Heather "JPL's Aerogel makes Record Books As Lightest Solid", SPACE.com May 10, 2002 http://www.space.com/news/aerogel_record_020510.html
3. "Stardust: How to Bring Home a Comet", Stardust.jpl.nasa.gov.com November 29, 2005 <http://stardust.jpl.nasa.gov/science/feature002.html>

Metamorphic Rocks

by Bert Ellison (From *The Brampton Rockpile*)

Mineral collectors may be overlooking this class of rocks in favour of more exotic outcrops like pegmatites, rightly famed for their great varieties of large crystals. While it may take wider searching for collectables in metamorphic areas, that area is vast in Ontario - and other provinces and territories as well.

The name tells us that changes have taken place, converting some "original" rock to some new form. Some metamorphic rocks go through the process more than once. And what are the prizes? Of course, that depends on the collector's objectives, but there is a huge variety to choose from. How about garnets of several kinds? Or kyanite's blue lathes. Or staurolite's strange crosses. Or sillimanite and andalusite, indicators of extreme changes?

Metamorphic rocks and minerals can tell tales of their history through ancient times. They may be several kilometers in depth, and are formed at temperatures from 300 deg. to 800 deg. Celsius (but not melting heat).

Readers may appreciate a brief review of rocks patiently presented by a loveable, but ill-prepared, teacher in grade school upon whom this strange subject was inflicted. Remember? "Mud" hardens into shale, which may become slate, famous for its fine split. Unlike shale, slate is much harder and breaks across the bedding planes. Shale may convert to silky, wavy, leaf-like phyllite (perhaps some garnets here!). Both phyllite and schist split rather nicely.

Gneiss is likely the most common rock in Ontario's part of the Shield. It is coarsely banded, splits poorly and often has pink bands (feldspars) and darker bands (hornblende and mica), suggesting a granite origin. In contrast, if the "original" rock is mafic (basalt), one may end up with zeolites, green schist (yes, it is green!), with mica, epidote, actinolite and white (albite) feldspar. Pressed even harder, we get the amphibolite group and even blue schist and eclogites (pyroxene-garnet rocks). These exotic rocks may represent part of the earth's mantle. Limestones and dolomites are, of course, sedimentary types. Under stress they convert to coarser textures called marble. What about sandstone? It may convert to the toughest, hardest of all rocks - quartzite. Water is a key ingredient in all of these changes.

When lines on a map join points where certain minerals first appear, the lines are called isograds. They tend to run parallel to major structures like mountain ranges. They may also offer clues about "exotic terranes" - blocks of continental material "from away" or "from elsewhere", and are now welded onto North America. Alaska is a fearsomely complex area where geologists speculate that "12 to 20" terranes have welded onto that region.

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All submissions to the newsletter must be in my hand before the 18th of any given month, or they will be used in the next subsequent newsletter.

The purpose of our club is:

- To promote and encourage the study of mineralogy and other applied sciences.
- To cooperate with educational and scientific institutions in order to bring about a better and more general understanding of earth sciences.
- To provide a program with suitable speakers for scheduled meetings.
- To sponsor, direct, and assist in the planning of excursions to mineral localities and other places of geological interest.
- To cooperate with organizations whose purposes are similar to those stated in the foregoing items.

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