



UPCOMING SHOWS

FRANKLIN MINERAL MUSEUM - 49th Annual Show

September 24 and 25

Franklin School, Washington Ave.

Franklin, NJ

For more info: contact Lee Lowell, (973) 827-6671;

E-mail: fmm1954@earthlink.net.



SUFFOLK GEM AND MINERAL CLUB, INC.

32nd Annual Gem & Mineral Show

December 3 and 4

Stony Brook University –

Student Activities Center

Stony Brook, NY

For more info: 631-666-8023

www.suffolkgem.com

P. O. Box 302
Bohemia, L.I., NY
11716



SEPTEMBER 2005

THE CONGLOMERATE

The Monthly Newsletter of the Suffolk Gem & Mineral Club, Inc.

Monthly Club meetings held at the Bay Shore-Brightwaters Library, Montauk Highway, Brightwaters starting at 8:00pm

CLUB OFFICERS

President – Thomas Wines	631-472-4395	Director - Elaine Casani	631-567-3342
Vice President - Kerry Dicker	631-277-0994	Director – Dorothy Scott	631-281-8555
Treasurer - Roberta Besso	631-666-8023	Director - Gretchen Golden	631-730-6858
Corres. Sec’y. – Kandy Miller	631-928-5219	Club Liaison – Charles Runko (cell)	631-988-0789
Recording Sec’y. – Judi Wines	631-472-4395		

The Conglomerate: *Editor* – Judi Wines *Co-Editor* – Marty Besso

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Next Meeting – September 19

VP Kerry Dicker will lead the group in making a beaded watch. The Club will supply all materials at a member cost of \$5.00 for each watch. If you wish, you may use your own beads. Please bring a dishcloth to prevent beads from wandering off the table.

Last Meeting

Gene Austin spoke on meteorites.

New Member

Robert Milius – Bellport, NY

Annual Summer Picnic

The Club’s picnic was held on August 7 at Hecksher State Park. Photos are posted on the website.

Return to "RED HILL" - October 1st and 2nd 2005

This fall we are greeted with an opportunity to return to an active research site known as "RED HILL"¹ near Hyner, PA. The site is rich with otherwise rare Devonian fish skeletons and scales, as well as the earliest large land plants, and some invertebrates. Bones from some more stem tetrapods have also been found. As an active site, any important finds must be rendered to the Academy of Natural Sciences for studies. However, you will be able to keep the vast majority of your finds. There is also a field museum in nearby North Bend with a wonderful collection from the site.

We will meet up at noon on October 1st, for a full afternoon of collecting. October 2nd may feature this or another site, (still to be determined). The upside of this site is that it is actively studied with groundbreaking discoveries of our earliest terrestrial ancestors. It is entirely possible to end up with an important species named by you! The down side is that it is a somewhat dangerous site; on a highway below an unbenched cliff. Small children are not allowed and we are allowed only in the certain areas and at our own risk. Goggles, hardhats and NYPS membership is are required.

¹ For the Red Hill Story check out <http://www.kcsd.k12.pa.us/~renovohp/dig/story/index.html>

To register to go on the trip, or for more information please contact field trip coordinator Chris Marotta at dmarotta@suffolk.lib.ny.us. We will also attempt to match up people who are interested in carpooling.

"After the Dig" by Club Member Chris Marotta

There is little in life that compares with a Paleozoic treasure hunt, in some scenic region, with a group of old friends and new. The scenery is astounding, the air fresh, and even the ache of the “work-out” on the slopes feels good in a healthy sort of way. It is a wonderful day or two of adventure and enjoyment.

In many of our favorite spots, we are virtually guaranteed to see something that is new to us, or maybe even find the infrequent “museum quality” specimen of some fascinating ancient critter. By the end of the day, our group usually makes several exceptional finds. Many of my own best finds, I have learned, were not realized on site, but rather occur after the dig; while working on the odd rock pieces that seemed to urge closer examination. These pieces of rock may sometimes yield nice specimens or even something mysterious that requires a little research.

A good example is a little (1.5 cm.) curved-edge triangle that poked out of a limestone slab that I had pulled out of the Kalkberg Formation during our Fall 2000 visit.

It didn’t look like anything familiar so I placed it in the car for future examination. Six months went by with work, the kids and all sorts of tasks before I got to look at this particular find. The curved edge point that poked out terminated on one end, but I was able to lift some of the limestone at the other two edges. They continued to fan out into the rock. A little bit of careful scratching around matrix revealed ridges. Now I knew what Class of animal it was.

It was the Pygidium (rear section) of an unfamiliar (to me) trilobite. I continued to very carefully scratch away the matrix overburden with an old gin sue knife; (If it can cut a can why not limestone?). To my delight, the thorax region began to emerge. To make a long story

short about 80 percent of a beautiful four inch (10 cm) Dalminites trilobite (*Odontochile micrurus*) was in there and is now one of my best personal finds.

As a beginner, I don't yet have a lot of sophisticated equipment for preparing fossils, but a lot of patients and some expendable screwdrivers, knives, nails and pins are doing the job for most finds. There are a few more pieces, however, that I am simply holding aside until a future date rather than damaging now.

In the mean time, there is another simple method for removing carbonate rock matrix that works well for me, with proper caution, goggles and mask: It's dilutions of Muriatic Acid. It's the stuff that is often used to shock swimming pools in the spring. When watered down a little, it can be used to "eat" the limestone around the fossil and to very carefully clean the surface of the fossil. But be careful! Too much can eat into the fossil (or damage your patio for that matter). It does not seem to react, however, with non-carbonates such as sandstone nor shale but will rust iron tools.

In addition to the occasional superb specimen, the fieldwork has also often lead me to challenging "mystery fossils" to be examined and researched later. These are those bizarre bits and pieces that may not look very aesthetic but what the heck are they? They often are pieces or whole creatures that may be unfamiliar to amateurs such as I. What can be more exciting than an example of a long gone life form that we may know little about? It may be some entirely unexpected configuration. Mentally adding this animal in to the mix helps us to increase our vision of the ancient environment.

I would like to share two examples of finds like this. One goes back to our Fall 2000 trip to Deer Lake. Several of us on the trip noticed strange little nodules that were shaped like a cross section of corn on the cob, covered with pyrite or rust and up to the size of a tennis ball. I took an interesting sample home that seemed to have a large "S" shaped tube in its center.

A little bit of research and contacting an expert taught me that this was a *Pleurodictyum* (Genus). A *Pleurodictyum* is a tabulate coral found mainly in the lower Devonian. What is unusual about this colony is that they are **always** found with a commensal tubeworm in their center. Now try to imagine how a coral and a worm could benefit each other...and maybe even depend on each other. Fascinating! This distinctive feature had helped paleontologist's successful trace

faunal migrations in part of Laurasia (prehistoric Europe).

Another nice mystery was a little (3 cm) "palm tree" shaped figure of thin white material found on a "scouting trip" before our York trip. This curious whisky shape was found in the Early Cambrian Kinzer formation so the possibilities ranged from something new to pseudo-fossil. Once again, a little research and correspondence with paleontologist friends helped me unravel the mystery. It appears to be a Helicoplacoidia. If so, it is a strange ancestor of the Echinoderms, Cystoids and Crinoids, appearing shortly after the line's divergence from Carpoids. Not a fossil that displays particularly nicely but what a story it tells from the remote past!

The diversity of life forms even currently, is absolutely astounding. There really are wonderful opportunities to find new, (at least new to most of us) and interesting things in the rocks we work. Recently I gave just taken several biology courses and I am starting to understand a lot more of what I find. The Biology field itself is undergoing a revolution with many new Phyla now being recognized based on DNA or RNA analyses of cells and molecules. There are also many "lesser" phyla to be found, such as Ectoprocta, that we don't otherwise see frequently, other than in our prehistoric rocks. Close examination after the dig, reveals a complex world that now only exists as shadows in rock, visible only to those who by chance turn over a particular rock and take a close look.

There is no doubt that the highlight for many collectors such as I is the rare road trip off into nature for a day fossil hunting adventure. What is more exciting than the prospect of unearthing an unexpected treasure in the ancient sediments? Though little compares with fieldwork, I have also often found certain instances that the rocks continue give long afterward. These are just a few "after the dig" finds. It seems that there are always some. Anytime you see something weird in the rock, check it out. Who knows what it may reveal.



