

CRACK 'N CAB



Gem & Mineral Society of Syracuse, PO Box 2801, Syracuse, NY
web <https://www.syracusegemsociety.com> Volume 53 Issue 5, May 2023
209 Oswego St (Ponderosa Plaza), Unit 15, Liverpool, NY

BREAKING NEWS: MAY PROGRAM CHANGE

Monday, May 15 Meeting:

“Get Ready for the Show!”

The Gem and Mineral Society of Syracuse
56th Gem, Mineral, Fossil, and Jewelry Show
Center of Progress Building
New York State Fairgrounds
581 State Fair Blvd.
Syracuse, NY

New York Rocks
Saturday, July 8, 2023
10 am - 6 pm
Sunday, July 9, 2023
10 am - 4 pm

Minerals - Fossils - Crystals
Jewelry - Demonstrations
Lectures - Metaphysical
Youth area with a sluice
Fun for the entire family

Picture Courtesy of the NYS Museum, Albany NY
\$7.00 per person

Children under 12 and scouts in uniform with an adult get in FREE

“What Goes on at the July Show?” - See Page 3

“The Joy and Importance of Show Exhibitions” – See Page 4

Show Volunteer Positions Needed - See Pages 5 and 6

Also: 7 pm - Silent Auction, and Knowledge Corner: Dave Millis talks about Feldspars; and Refreshments! -Page 6

April Meeting with Len & Susan Sharp - Review and Photos Pages 8 through 11

GMSS Meeting Schedule & Area Spring Shows – Pages 6 and 7



Photo by Judy Cook

President's Message

John Sweeney



Wikipedia

Our president and his wife decided to travel to the Galapagos Islands, just to avoid having to submit his monthly report. There are unsubstantiated rumors that he may have fallen into a volcano or was eaten by a giant tortoise. Our vice president ably steps in.

Vice President's Message

Cathy Patterson

Clear Out Your Mineral/Lapidary Scraps!

We need a large quantity of interesting/sparkly minerals, fossils, and even beads all no bigger than thumbnail size to fit into sluice bags for the kids at our July show. We have MUCH blue calcite but need some fossils, shark teeth, garnet and the like. Please start collecting and **bring them to the May 15 meeting or JUNE 19 Work Night meeting**. The kids will LOVE it!

Silent Auction!

Bring in a couple of mineral/fossil or lapidary hobby-related items for **our silent auction Monday, May 15**. Bring cash for making change and for purchases. This is a fun way to pick up some rock-related bargains. **We'll do the silent auction before the meeting starts at 7:30PM.**

Welcome to Our New Members!

Please make our new members feel at home. Let's grow our rockhound family!

Secretary's Reports

Teresa Arnold

Board Meeting Minutes May 2, 2023

Called to order at 7PM /Cathy Patterson

Adjourned at 8:30 PM / Cathy Patterson

VP Programs - Cathy Patterson

May 15 Program: Possible Change –

- Discussion about May General Meeting Auction - vs- meeting about the upcoming Show. After hearing from all in attendance, it was decided that the Auction will be rescheduled to a later date in favor of dedicating the meeting to the Show. We will impress upon the membership the importance of working the show and will drive home the fact that the Show is our main money maker, and it is a great opportunity to get involved, meet people and have fun!! Cheryl will post the sign-up sheets on the back wall of the meeting room along with printed job descriptions. Linda A. will provide pens on strings for ease of signing up. Job descriptions will also be in newsletter.

- Rock Doc will give a brief talk about feldspar
- Dave Arcaro will report on trip to Deep Springs Rd.
- May 6 is the rain date for storage shed project
- Dino Zack is a possible speaker for our November meeting.

June 19 Program: Work Night

- Stuff Straws and sluice bags
- Get many to sign up to work
- Eat Ice Cream – club will buy and members scoop. We'll have toppings. Linda and Kris have electric coolers to keep ice cream frozen.

Web – Amanda Lytle -www.syracusegemsociety.com - this is paid for until January, we will continue to use and “point” to our new GMSS.club address. Will hopefully transition to the shorter address by January.

Show Committee – Cheryl Brown

- July 7 set up!
- July 8 – 10 AM – 6PM. Federation Auction at 1:30 Saturday, open to the public.
- July 9 -10 AM – 4PM

• Next show meeting is May 23rd and there will be one more in June.

EFMLS Convention

- EFMLS Auction Saturday of show at 1:30pm
- Banquet - Saturday evening
- Editors Breakfast

Facebook – Judy Cook - reports a large amount of activity on our FB page. She shared statistics from Facebook showing hits by demographics, pretty interesting. She is keeping it updated and the show is featured prominently.

Membership – Cheryl Brown reports 166 members.

Secretary Report – Teresa reports that the binder containing minutes of Board, General and Show meetings is in the back closet in a box with past minutes. Will be updated monthly going forward. This is available to anyone wanting to read the minutes.

“Treasurer Report” – Cathy Patterson

- Audit done by Linda Clark, Kip Perkins, Kris Boronczyk.
- Changes coming to our Chase Account....to be learned in June.

Newsletter – Larry Petry - deadline for newsletter articles is Wed 5/3 at 11:30PM. Larry will print show job descriptions in the newsletter.

Lapidary - Steve Shorey / Bill Verge

- Looking for a flat lap.
- Dop sticks, paper towels, and finger cots were purchased by Bill Verge.

Junior Rockhounds – Rick Moore - no members at this time, the ones we had have not come back. We discussed ways to attract new members, including advertising at the youth corner at the show, libraries, with scouting groups, etc. We discussed how the meeting being on a school night might have an impact on attendance. Will table for now and form a committee to discuss at a later date.

Building – John Sweeney

- Tear down room A on hold.
- Clubhouse may need clean-up day soon.... After show??

Respectfully Submitted,
Teresa Arnold, Secretary

What Goes on at the July Show?

Cheryl Brown

Our annual show is what funds the club throughout the year. This is our major fundraiser. But more importantly, it is a great opportunity to get to know other club members and like-minded people in the community. This year is especially important because we are hosting the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) annual convention. There are lots of things to do over the Show weekend.

We begin Friday at 8 am with setting-up the tables for the vendors, setting-up our Club Booth, the Youth Area Activities, and the Learning Center Area. Then **we welcome the vendors** throughout the afternoon and early evening and help them any way we can as they set up. Additionally, **Display Cases** are set-up and filled by club members and EFMLS folks.

Saturday: the fun begins! The first people our customers see are the **ticket sellers**, then they are helped with their wrist bands by the **inside greeters** who give them a program and direct them to the club booth.

The club booth is the heart of the show. Lots of activities happen here. There is the 25-cent straw draw, hourly drawings, and the grand prize drawing. Folks will be asking lots of questions here but if you are new to the club, there will be lots of veterans around to help out.

Children look forward to **the youth area** where they can pan for specimens in the sluice, make a bracelet and carve soapstone. They can also participate in a show-wide treasure hunt.

There are lots of other jobs that aren't as visible. There are **doors that need to be watched** and the **wholesale area check-in table** to be monitored.

Security is one of the more important jobs. It is an unfortunate reality that some people have sticky fingers. Our security folks walk around the show looking for anything suspicious. We have police onsite who can be contacted if we see something.

Sunday is a repeat of Saturday until 4:00 when the show closes. We **break down the club booth, youth area and the display cases.** Everything previously brought to the Show Friday morning from our off-site storage unit is loaded back onto a truck and returned to storage.

All in all, it is a fast moving, fun weekend. And you can take a break and do some shopping, too.

Sign up for a shift and be part of the fun. Get to know some new friends. **Sign-up sheets will be available at the May meeting.**



Keith Gilmer demonstrates how a display case is put together as well as giving tips on how to best show off your treasures. (Photo by Judy Cook)

The Joy and Importance of Show Exhibitions

By Keith Gilmer (May 2022 C'NC)

Collecting is part of the reason that brings us together; but exhibiting what we have acquired and sharing that experience with friends, family, and often total strangers extends our experiences to all those who wish to learn and understand. Our collection[s] may enrich us, but our exhibition[s] enrich everyone who sees and experiences them. So please consider an exhibit in the annual show. Share your passion for the hobby with others and they too may find that passion within themselves. Thanks.

The following are some examples of club members' show exhibits.



Photos by Judy Cook



Welcome to New Members in April

- Maureen Getman
- Ross Getman
- Paul Henley
- Lee Levesque III
- Lisa Masters
- Jessica Pyrda
- Pawel Pyrda
- Karen Sherman
- Kelly Sherman
- Laurel Visco

Geo Lexis (Puzzle) By Anne Fitzgerald

"The Good Regolith"

May is a time for planting, and oh how humans like to plant.

Right now, things are being planted in space on the International Space Station, and in special vials (with earth-added components) on the moon. But what about planting things on Earth using Moon stuff?

Well known to geologists, (and only recently to me,) the word "regolith" describes a layer of debris on the Moon. From the Greek "rhegos" (blanket) and "lithos" (rock,) regolith also describes a layer of debris on top of the earth. A really long time ago, our regolith was similar to what is now on the moon.

Some scientists call Moon regolith lunar "soil." Let's stop that misnomer in the dirt, before it gets totally out of control like the "Rare" Earth Elements. (Can't we just call them something else, like "Screen and Battery Elements?")

And speaking of the elements, on Earth, soil consists of weathering and biological processes. On the Moon, regolith consists of meteorite debris and lunar dust. Without the biological stuff, you've got plain old regolith, not soil. Could it be that plants could be grown in plain old regolith?

In May of 2022, long after successful astronaut collection during Apollo missions, and after 11 years of requests from NASA, a group of University of Florida scientists finally received 50-year-old regolith samples from the Moon. Scientists wanted these samples so they could try planting stuff. It worked! The plants were stressed out after a couple of weeks. (Wouldn't you be?) These plants in the mustard green family, planted in lunar regolith, have now successfully survived here on Earth.

Perhaps someday we will need Moon Farmers or Lunar Yeomen (or Yeowomen?). In the meantime, here are some word puzzles to help your brain flourish. The answers are found on Page 8 of this newsletter.

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CALLING ALL CLUB MEMBERS

Our annual show is July 8th and 9th in the Center of Progress Building at the Fairgrounds. We need help in all areas on all three days.

Set-up is July 7th starting at 8AM. We need help setting up tables, the club booth and display cases.

- **Club Booth** - Cathy Patterson has identified the needs in the all-important Club Booth in another box (see Page 6).
- **Security** - we will need people to sit at 6 doors during the show as well as people walking around watching for shoplifters.
- **Tickets** - we need two people per hour to sell tickets.
- **Inside greeters** – we need two people per hour to make sure wristbands are put on and to hand out flyers.
- **Youth Area** – the youth area is fairly well covered, but they can always use extra help.
- **Wholesale Door** – we need people to check in wholesale shoppers and stamp their hands.
- **Tear-down** – we need *lots* of help taking down the youth area, club booth, learning center, and display cases.

We need everyone's help.

If you would like to help, please email Cheryl at gmsrocks@gmail.com. Thanks!

If you need a red T-shirt, please sign up for one.

Thank you all for helping to make our show a success! Without you, it wouldn't be possible.

CLUB BOOTH VOLUNTEERS WANTED

We need **MANY** volunteers to run this important booth. Saturday 10-4:00 are “rocking” busy so we’ll need lots of people to work. Two-hour shifts are preferable, so you get to know how to run things but give us any time you have. We’ll take any and all volunteers, **ESPECIALLY NEW MEMBERS!**

Free admission to the show can be had by folks giving the club **at least 4 hours of volunteer time** at any of the many job spots we have to fill during the weekend. Sunday morning is generally lightly attended, then in the afternoon it picks up.

Saturday

9:15-noon (4 minimum) 2 for Straw Draw, 1 for magazines and memberships, 1 for backup/auction set up at 9:15AM lights on, cases clean, supplies in order, etc.

Noon -2:00 (4) 2 for Straw Draw, 1 for magazine sales and memberships, 1 for backup/auction

2:00 – 4:00 (3) 2 for Straw Draw, 1 for auction, memberships, etc.

4:00 – 6:00 (3) 2 for Straw Draw, 1 for auction etc.

Sunday

9:15 – 10:00 set up, cleaning, lights on, supplies ready, etc.

10:00 – noon (3-4) for Straw Draw, memberships, back up/auction

Noon – 2:00 (4) Straw Draw, auction, etc.

2:00 – 4:00 (3-4) Straw Draw

4:00 - 4: ? Clean up crew- put away supplies, fold table covers, disassemble show cases, pick winner of **GRAND PRIZE**, etc. This will take 30 minutes at least.

Upcoming Events



Deep Springs Rd. photo by Candy Cain

Saturday, May 13 - Fossil field trip to Deep Springs Rd., Earlville, NY. 16 members signed up so far. If you are interested in joining the group, **please contact David Arcaro darc2667@aol.com** to be added to the list. **Members will meet at the clubhouse at 7:30 AM.** *Plenty of fossils to find: brachiopods, cephalopods, crinoids, gastropods!* If you want to meet at the dig site, please contact David for directions. He will contact those on the list with more details.

MAY 15 – GMSS meeting – 7:30 pm, REVISED SCHEDULE: Our July Show Informational Meeting! How to set up a display case, **descriptions of important volunteer positions, FAQ, Sign-up sheets.** Also, silent auction (7 pm), Knowledge Corner – Dave Millis will give a 15–20-minute talk at 7pm on **Feldspars**. More numerous as a group than quartz. Most feldspars are either orthoclase or plagioclase. Both will be shown. Main use is in ceramics. See how good your china really is! As usual, samples will be given out.

Saturday, May 20 - New Lapidary Class will start at 10am, runs for 3 weeks from 10am to 12 noon and costs \$50 total. Our classes are always full so sign up as soon as possible. For more information contact:

Bill Vergé

617-872-4528

b.verge@comcast.net

MAY 23 – “New York Rocks” Show Committee meeting - 7 pm at the Clubhouse. All are invited.

JUNE 6 – GMSS Board meeting – 7 pm at the Clubhouse. All are invited.

Next Show Committee Meeting

Tues., May 23 at 7:00

All are welcome!
Come find out what our July show is all about!

JUNE 19 – GMSS meeting – 7:30 pm, Work Night for our July Show! Stuff straws and sluice bags, plus any other tasks that need doing before the Show. Also, Ice Cream eating!



Photo by Judy Cook

JUNE 27 – (Last-minute) “New York Rocks” Show Committee meeting - 7 pm at the Clubhouse. All are invited.

Upcoming Spring Shows:

May 18-21—FRANKLIN, NC: Annual show; Three Bears LLP; Open Air Lot, 1602 Highlands Rd; Thu. 9-6, Fri. 9-6, Sat. 9-6, Sun. 9-6; Free and open to the public; contact Ruth M. Gibson, (828) 369-6341; Email: vwcompanies@gmail.com

May 19-21—FRANKLIN, NC: Retail show; The Franklin Gem & Mineral Society; The Robert C. Carpenter Community Building, 1288 Georgia Rd; Fri. 10-6, Sat. 10-6, Sun. 10-4; Adults: \$3; Demonstrations of lapidary machines & art including Cabochon making, & faceting. Daily presentations by guest speakers on exciting & educational topics related to gems & minerals. Hourly door prizes & a grand prize at the end of the show; contact Chandra Fox, (706) 982-0402; Email: fgmshows@gmail.com; Website: fgmm.org

May 20-21—BENNINGTON, VT: Annual show; Southwestern Vermont Mineral & Gem Club, Inc; Grace Christian School, 104 Kocher Dr; Sat. 10-5, Sun. 10-3; Adults \$5. Kids FREE; Mineral booklets for the Kids (complimentary); contact Bill Cotrofeld, (802) 375-6782; Email: cotrofeldauto@comcast.net

May 20-21—NORTH OLMSTED, OH: Annual show; Parma Lapidary Club; Soccer Sportsplex, 31515 Lorain Rd; Sat. 10-6, Sun. 10-5; \$6 Adults, Children 12 & under, Scouts in Uniform are Free; Gems & Minerals, Beads! Fossils! Live Demos & Exhibits, Basket Raffle & Door Prizes; Hand Crafted Jewelry & More! Door is Cash only. Credit card accepted for purchase of 4 or more tickets; contact Show Chair, (216) 544-0425; Email: parmalapidary@yahoo.com; Website: www.parmalapidary.com

May 26-28—SALEM, VA: Annual show; American Gem, Mineral & Jewelry Shows LLC; Salem Civic Center, 1001 Roanoke Blvd; Fri. 10-6, Sat. 10-6, Sun. 11-4; Adults \$7, Ages 11-17 \$2, Free admission for age 10 & under; Vendors offering Gems, Minerals, Jewelry, Beads, Fossils & Meteorites; contact Alan Koch; Email: agmjs3@gmail.com; Website: www.americangemshow.com

June 3-3—MACUNGIE, PA: Show & sale; Pennsylvania Earth Sciences Association (PESA); Macungie Memorial Park, 50 Poplar St; Sat. 8:30-3; Free admission; Two floors of indoor

dealers & outside tailgating-style dealers having gems, fossils, minerals & rocks from six continents & outer space await you. Take a peek at our fluorescent mineral room run by the Franklin Mineral Museum; contact Dane Transue; Email: danetransue@rcn.com; Website: www.facebook.com/Pennsylvania-Earth-Sciences-Association-PESA-mineralfest-and-clubs-1555170821375067

June 3-4—WEST FRIENDSHIP, MD: Annual show; Mid-Atlantic Gem & Mineral Association, LLC; Howard County Fairgrounds, 2210 Fairgrounds Rd; Sat. 10-5, Sun. 11-4; \$6; Gem Miner's Spring Gem, Mineral & Bead Show; Discount Admission available online; contact Teresa Soltis Schwab, (301) 807-9745; Email: beadware@rcn.com; Website: www.gem-show.com

June 3-4—CANANDAIGUA, NY: Annual show; Wayne County Gem & Mineral Club; Greater Canandaigua Civic Center, 250 North Bloomfield Rd; Sat. 10-5, Sun. 10-4; \$5 for adults, children 12 & under are free; A family-friendly show with a variety of mineral dealers & vendors, club member exhibits, hourly door prizes, & many kid-friendly activities like soapstone carving, free fossils & Jerry's dinosaur, wire wrapping, gem sluicing, a scavenger hunt, & more; contact James Keeler; Email: jamesrocks@jkeeler.com; Website: www.waynecountygemmineral.org

June 3-4—MONROE, NY: Show & sale; Orange County Mineral Society (NY); Museum Village, 1010 Route 17M; Sat. 10-5, Sun. 10-4; Admission \$5. Seniors & kids \$3. Under 12 & scouts in uniform Free; contact Ron Nelson; Email: rn33@icloud.com; Website: www.ocmsny.org

June 10—KENT, CT: Show; Connecticut Antique Machinery Museum & Danbury Mineralogical Society; Connecticut Antique Machinery Museum, 31 Kent-Cornwall Rd (Route 7); Sat. 9-4; Free; Tour the new mining exhibits; contact John Pawloski, (860) 354-029; Email: j.a.pawloski@att.net

June 10-11—MANSFIELD, OH: Annual show; Mid-Ohio Mineral & Fossil Club; Fairhaven Hall Richland County Fairgrounds, 750 North Home Rd; Sat. 10-6, Sun. 11-5; \$5 adults seniors \$4 children 6-16 \$3 under 6 free, scouts in uniform free; Show theme is trilobites. Sunday PaleoJoe will be speaking at 1 pm Expanded kid's zone. Daily silent auction & hourly door prizes with a grand door prize. Geode breaking & demonstrations; contact Tom Kottyan, (419) 561-3595; Email: themineralhouse@netzero.net; Website: www.rlls.webs.com/

June 24-25—GILSUM, NH: Annual show; Gilsum Recreation Committee; Gilsum Steam Academy, 640 Route 10; Sat. 8-6, Sun. 8-4; Free, Donations accepted; Gilsum Rock Swap & Mineral Show featuring more than 65 rock & gem dealers, swappers & collectors offering semi-precious stones, gemstones, jewelry, & rocks & minerals of all sorts; contact Jonathan Bialek c/o Gilsum Recreation Committee; Email: publicity@gilsum.org; Website: www.gilsum.org/rockswap/

July 8-9—SYRACUSE, NY: Annual show; Gem & Mineral Society of Syracuse, Inc; Center of Progress Building at the New York State Fairgrounds, 575 State Fair Blvd; Sat. 10-6, Sun. 10-4; \$7 Adults, Free for children under 12 & scouts in uniform with paid adult admission; More than 60 retail & wholesale dealers, several demonstrators, displays, & activities for children. You can pick out a geode and watch the dealer crack it. Vendors will be selling minerals, fossils, crystals, jewelry, beads, cabs, and jewelry making supplies; contact

Cheryl Brown, Email: show@syracusegemsociety.com;
Website: www.syracusegemsociety.com

Answers to Geo Lexis

n moon rise

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\$ Soil pay dirt (or rich soil)

soil celestial-being Earth angel

yucky 12 dirty dozen

Sources and further reading:

<https://www.slashgear.com/880562/12-coolest-science-discoveries-of-may-2022> (Plants grown in lunar soil)

<https://www.weforum.org/agenda/2022/05/scientists-grow-plants-in-lunar-soil-for-the-first-time/>

<https://lunarpedia.org/w/Home>

<https://en.wikipedia.org/wiki/Regolith#>:

[www.smithsonianmag.com/smart-news/scientists-prove-that-plants-can-grow-in-soil-from-moon-180980081/Elizabeth Gamillo May 2022](http://www.smithsonianmag.com/smart-news/scientists-prove-that-plants-can-grow-in-soil-from-moon-180980081/Elizabeth%20Gamillo%20May%202022)

April 17, 2023 - Club Meeting

Knowledge Center – Dave Millis



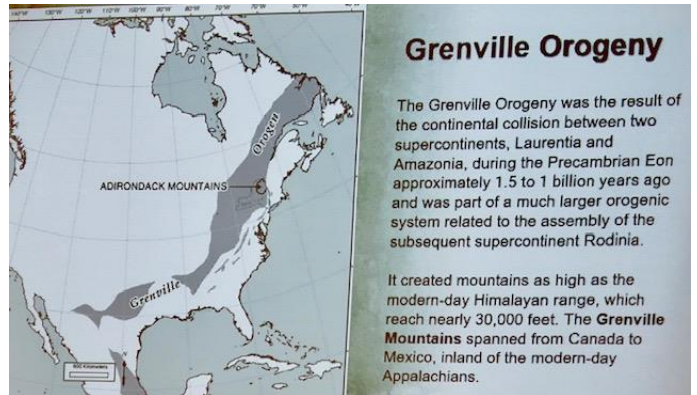
Photos by Judy Cook

“Rock Doc” Dave Millis had a sample display and discussion regarding the types of fossils that can be found at the Deep Springs Road dig site. See Page 6 for information on the May 13th field trip.

April’s Program - “Geologic History & Ancient Life of New York”

Susan and Len Sharp gave a presentation that explored New York State’s unique and spectacular geological history. That history is found in the various rock layers and in the time distribution of important fossils from different geologic eras and periods that can be found in the state. These rock layers experienced numerous changes, including several ice ages, and much of the region was flooded by a shallow sea depositing thick sequences of sedimentary rock, with prominent fossil-bearing features.

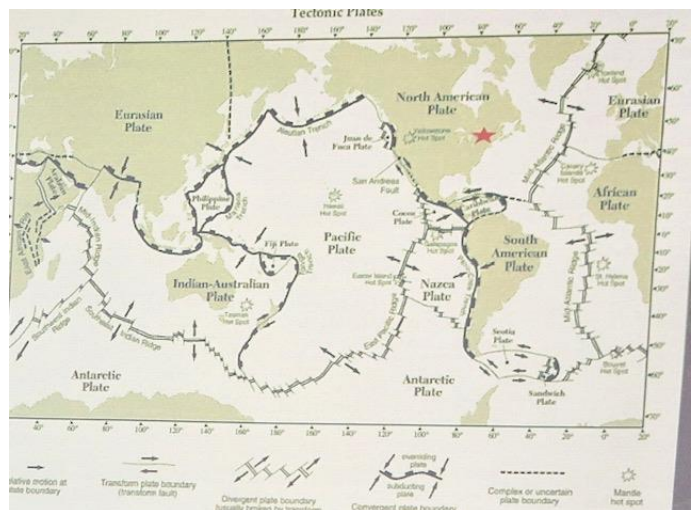
Photos by Judy Cook




Important Geologic Events in NYS

- 4 major mountain building events:
 - Grenville Orogeny 1.1 BYA
 - Taconian Orogeny 460 MYA
 - Acadian Orogeny 400 MYA
 - Alleghanian Orogeny 318 MYA
- Warm, shallow sea covers NYS .5 BYA
- Pallades Sill intrusion 200 MYA
- Continents separate and Atlantic Ocean forms 160 MYA
- Hot spot uplifts Adirondacks creating dome 140 MYA
- Glaciers advance south covering NYS, including the Adirondack Mountains 1.6 MYA
- Glaciers recede and megafauna appear 11,000 YA
- Long Island sandbar forms from glacial debris 11,000 YA

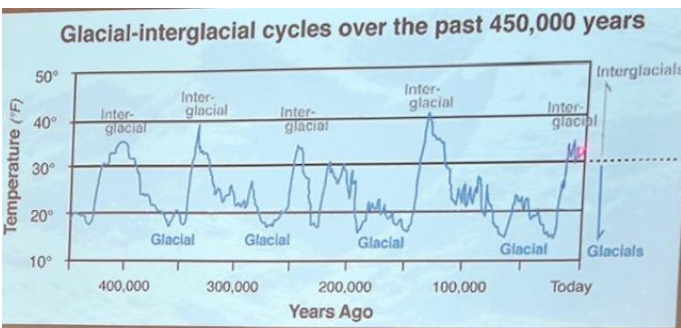
The oldest rocks in New York State; part of what is called the Grenville Province – were deposited around 1.3 billion years ago in shallow seas.



Humans first colonized North America after the Last Glacial Maximum (LGM).

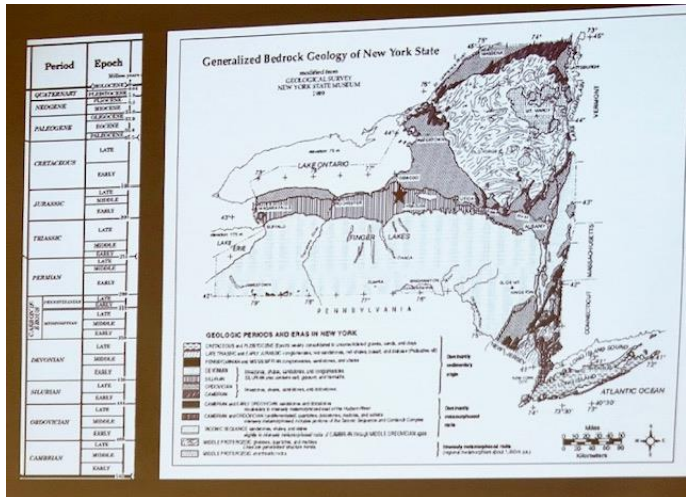
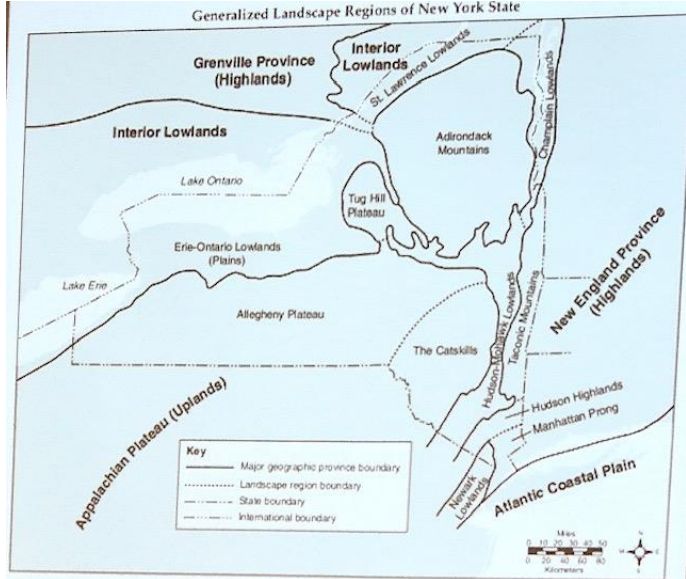
- Fluted points and other stone tools found suggest Native American arrival in NYS about 13,000 years ago
- When mammoth and mastodons went extinct in NYS, both boreal forest and tundra habitats were still present suggesting humans played a significant role in extinction of these species in New York State
- Early Paleoindian fluted point, Lamb site, Darien, Genesee County, New York. (Source: New York State Museum).



NYS's Climate and Future

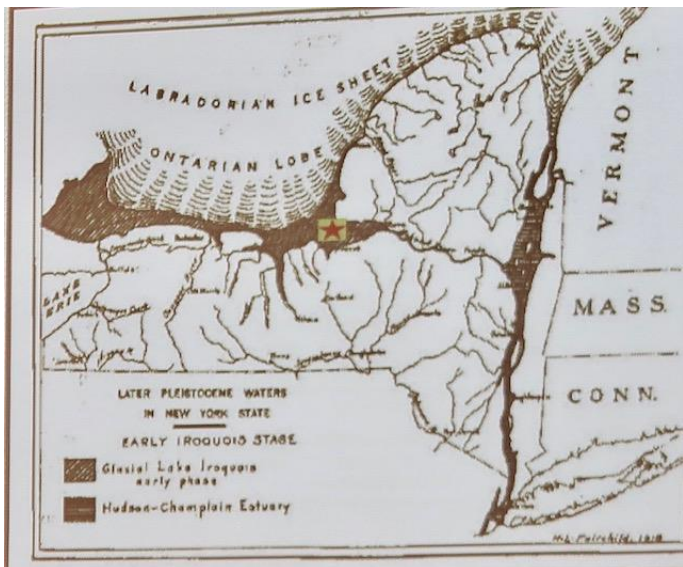
It is evident that New York State's animal and plant habitats moved north as the climate warmed after the last glaciation. Ultimately, by examining New York State's past climates and environments, as well as animals of the past, we not only learn more about our prehistory, but we can use that information to arrive at a better understanding of New York State today and how current events may shape New York, as well as the world of tomorrow.

NYS's average temperature is projected to rise by as much as 3°F by 2080 with the greatest warming occurring in the northern part of NYS. Rising annual temperatures are already having widespread impacts on NYS's communities and ecosystems. Winter temperatures, with fewer days below freezing, are bringing more winter precipitation to New York as rain, less snow, reduced snow cover, with earlier spring snowmelt. Climate change, weathering/erosion, and tectonic processes will continue to influence NYS's geologic history, landscapes, and life in the future.





- Finger Lakes formed about 2 mya (Pleistocene Ice Age)
- Carved by several glacial episodes
- Over 2 miles thick in some areas
- Total of 11 lakes in the Finger Lakes region
- Seneca Lake is the deepest (618 feet depth)



LAST GLACIAL MAXIMUM

Earth's last ice age, more appropriately called the Last Glacial Maximum (LGM), was a time of extreme cold. During this period, an enormous ice sheet, called the Laurentide Ice Sheet (LIS), covered much of northern North America, including most of what would become New York.

Only areas left uncovered in NYS included a small portion in the west where present-day Allegany State Park is located and southernmost part of Long Island. Geological data show that even New York's highest mountain peak in the Adirondack Mountains, Mount Marcy (1629 m high), was covered by the LIS. However, as the climate warmed, the LIS began to melt and plants and animals were able to re-colonize the areas of New York once covered by the ice.

HABITATS IN POST-ICE AGE NEW YORK

Using data extracted from sediment cores throughout New York, researchers are able to reconstruct what habitats existed at each study site as well as how these habitats changed over time.

THE FOUR MAJOR HABITATS to occur in New York after deglaciation from the LGM include:

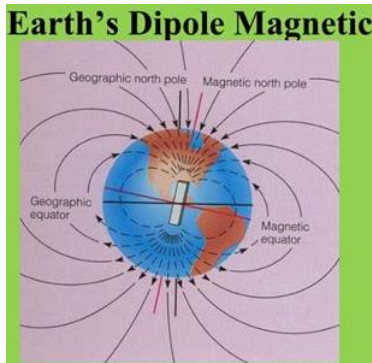


Len Sharp likes to wear New York's geology on his sleeve - or his shirt!

Magnetic Dipole

Feb. 17, 2023 (presented at the 3/20/23 Club meeting)
By Dave Millis

The earth has north and south magnetic poles, caused by the motion of liquid/molten iron in the core. In effect, an engine or motor or a generator [dynamo -Editor]. It is the only cyclic activity earth produces. It is called a magnetic dipole (2 poles).



slideserve.com

History: Since humans have been able to survey land it is known that the magnetic poles don't match the physical [geographic] poles. So, going back to the 1700s, surveys recorded the difference between the North Pole and the Magnetic North Pole. This is called the Magnetic Declination. You can look it up and surveyors have to do that because it isn't the same as when the original survey was done. It is also not the same at all points on earth. The declination will be on the survey or can be found from the date of the survey.

Once their equipment is pointing to "True North," the survey can begin. For about 300 years, the magnetic declination has been staying in the area of Hudson Bay. This is about 10 to 15 degrees in Northeastern USA. Here. Changes in the last 300 years no more than a few degrees in any one site. That's changing.

In the last 4 million years, the magnetic poles have switched places 9 times. We don't know how fast, nor do we know the consequences of not having a magnetic field to protect us from solar wind, which includes high energy protons. We do know we are safe now. We also know the motion of the magnetic pole has sped up and is moving (geologically) very fast toward True North. We don't know if it is going to speed up or slow down or change direction. When it flips, we don't know how long a flip is (10 years to us or 100,000 geological years). To my knowledge, no one has evaluated a flip effect on life.

Ancient History: The North Atlantic Ridge, which is pushing Europe away from us, has been measured and core drilled a lot. But the most revealing data was discovered by towing a magnetometer across the Ridge indicating that the magnetic field has flipped. This was done by [geophysicist Frederick] Vines and [Drummond] Matthews [at Cambridge University] in England. The rate at which this happened was measured by [geophysicist Allan] Cox and [isotope geochemist Brent] Dalrymple

working out of [the University of California, Berkley]. What they did was drill cores in the southwest and preserve the orientation. When measuring the magnetic orientation, they also noted the changes, i.e., the north/south pole switches. But they had the rocks too and by measuring their ages recorded the 9 flips in 4 million years.

Recently, a scientist was able to measure an 8 hertz signal from inside earth (8 hertz is 8 cycles per second). He has suggested Plate Tectonics; I suggest the Magnetic Dipole. The earth has moving plates, earthquakes, volcanoes, and on the surface, violent storms. These don't happen in cycles; they happen in irregular amounts, at irregular times, and of very irregular maximum magnitudes.

I have no data. It's possible the magnetic dipole causes plate movement. It is not possible plate movement creates the magnetic field.

Earth's Magnetic North Pole Follows 'Unusual' Path, Races Toward Siberia

BY ARISTOS GEORGIU, ON 3/23/23 AT 9:22 AM EDT

Experts told *Newsweek* that the pole could reach the vast Russian region as soon as the middle of the century. Having said that, the movement of the magnetic north pole is unpredictable, and scientists cannot reliably forecast how it will behave beyond a few years into the future. As a result, there is significant uncertainty as to how long it will take to reach Siberia and whether or not it will even get there at all.

<https://www.newsweek.com/earth-magnetic-north-pole-follows-unusual-path-races-towards-siberia-1789823>

When north goes south: Is Earth's magnetic field flipping?

It's been 780,000 years since this happened – and some scientists say that Earth's magnetic poles are long overdue for a switch.

By [Chris Holt](#) | Published: Tuesday, September 14, 2021
Something odd is happening to Earth's magnetic field. Over the last 200 years, it's been slowly weakening and shifting its magnetic north pole (where a compass points, not to be confused with the geographic north pole) from the Canadian Arctic toward Siberia. In recent decades, however, that slow shift south has quickened — reaching speeds upwards of [30 miles per year](#) (48 kilometers per year). Could we be on the brink of a geomagnetic reversal, in which the magnetic north and south poles swap places?

<https://astronomy.com/news/2021/09/when-north-goes-south-is-earths-magnetic-field-flipping>

Why Earth's Inner Core May Be Slowing Down

The planet's solid inner core might rotate at a different rate than the rest of the planet, and that rate might be changing

By Stephanie Pappas on January 25, 2023

The spin of Earth's inner core may have slowed, with the heart of the planet now rotating at a slightly more sluggish clip than the layers above, [new research finds](#). The slowdown could change how rapidly the entire planet spins, as well as influence how the core evolves with time. For the new study, published in the journal *Nature Geoscience*, scientists used a database of [earthquakes](#) to probe the behavior of [Earth's solid inner core](#) over time.

<https://www.scientificamerican.com/article/why-earths-inner-core-may-be-slowing-down/>

And, In Other News...

More than 1,700 people reported earthquake felt around Upstate New York

Updated: Apr. 24, 2023, 3:39 p.m. | Published: Apr. 24, 2023, 3:32 p.m.
By [Darlan Stevenson | DStevenson@syracuse.com](#)

Adams Center, N.Y. - The U.S Geological Survey said more than 1,700 people reported feeling an earthquake parts of Upstate New York Sunday afternoon. A magnitude 3.6 earthquake occurred around 2:10 p.m. with an epicenter four miles outside of Adams in Jefferson County, according to the United States Geological Survey.

A 2.6-magnitude earthquake shook the Adams Center area around 1:30 a.m. on April 14. The geological survey reported only 72 people said they felt the quake.

<https://www.syracuse.com/weather/2023/04/more-than-1700-people-reported-earthquake-felt-around-upstate-new-york.html>

Ice Age Plot Twist: Greenland Unfazed by Titanic Iceberg Discharges

By OREGON STATE UNIVERSITY APRIL 24, 2023

Massive iceberg discharges during the last ice age had no impact on nearby Greenland, raising new questions about climate dynamics.

Heinrich Events, massive iceberg discharges that occurred 16,000-60,000 years ago, didn't affect Greenland's temperature but caused rapid warming in Antarctica, according to an Oregon State University study. The findings challenge current understanding of global climate dynamics and prompt further research into the role of the Pacific Ocean.

<https://scitechdaily.com/ice-age-plot-twist-greenland-unfazed-by-titanic-iceberg-discharges/>

Rare Diamond Within a Diamond is Unearthed in India and Dubbed 'The Beating Heart'

by Andy Corbley April 25, 2023



The Beating Heart Diamond – V D Global, released

In India, a diamond company has its hands on a jewel that is rarer than rare—a large, hollow diamond, inside of which rests another, smaller diamond. Dubbed the “Beating Heart,” there is enough room inside the cavity to allow the smaller diamond to tumble around. Only one other such discovery has ever been made, and the company hopes to leave it uncut and unpolished to promote the natural splendor of the gemology therein. Vallabh Dhanjibhai Global in the west Indian state of Gujarat is a sightholder of the De Beers Group, the world's largest diamond exchange.

<https://www.goodnewsnetwork.org/rare-diamond-within-a-diamond-is-unearthed-in-india-and-dubbed-the-beating-heart/>

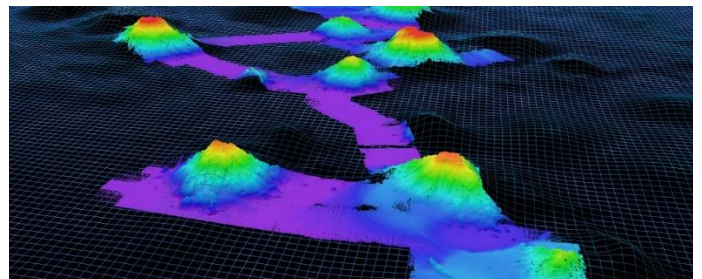
Almost 20,000 Ancient Volcanoes Discovered at The Bottom of The Ocean

NATURE 02 May 2023 By CLARE WATSON

[Less than one-quarter](#) of Earth's entire ocean floor has been mapped, leaving gaping holes in our understanding of the underwater realm.

Accidents await in the void: undiscovered seamounts – ancient mountains formed by volcanic activity – can rise thousands of meters in the darkness, putting unsuspecting submarines at risk.

Led by earth scientist Julie Gevorgian of the Scripps Institution of Oceanography in California, a team of scientists has just discovered more than 19,000 new seamounts using a new batch of satellite data. Created by volcanic activity deep beneath the ocean's surface, seamounts can rise to around 3 to 10 kilometers (6.2 miles) high. They tend to be easily detectable by sonar, but only if a ship happens to pass over them.



A chain of undersea volcanoes, also known as seamounts. ([NOAA Ocean Exploration](#))



Gem & Mineral Society of Syracuse
PO Box 2801
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First Class Mail
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www.amfed.org www.amfed.org/efmls [Future Rockhounds](#)

Eight people organized the Gem and Mineral Society of Syracuse in 1951. Since that time it has grown in membership to include adults, families, and young folk. The Society was incorporated in 1969 under the same name.

The objectives of the Society are to stimulate interest in mineralogy, paleontology, and the lapidary arts. Member interests include collecting, identification, and display of minerals, gems, fossils. Members share and develop their artistic skills in jewelry design and creation.

Our monthly meetings provide social and educational experiences. Field trips give collectors chances to find specimens and enjoy the out of doors, exercise and time with old and new friends.

Meetings - 3rd Monday of the month
Future Rockhounds @ 6:30 - General Meeting @ 7:30
(NO Meetings Jul, Aug, Dec)
209 Oswego St (Ponderosa Plaza) Unit 14 & 15, Liverpool, NY
Visitors are ALWAYS welcome!

See online Newsletter <http://gmss.us/resources/newsletter>
 You can also visit our facebook and flickr pages
Annual member dues
Adult \$10 • Family/Couple \$15 • Junior \$5 • Life \$5

If you would like to join or renew membership download the application form (PDF), see <http://gmss.us/about/membershipform.pdf> You can get a form at a meeting or send requests to **GMSS, PO Box 2801, Syracuse, NY 13220** We will mail an application/renewal form to you.

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