



Southern Maryland Rock and Mineral Club



ROCK TALK

DECEMBER 2022

20 DECEMBER 2022 at 1800 (6 PM)
 Meeting at OLD WALDORF SCHOOL
 (next to the Waldorf JayCees Hall)
 North of the RT 301 / RT 5 Intersection

December Program
ANNUAL CHRISTMAS PARTY!
6 PM (1800) Start

This year's party will be at the Old Waldorf School starting at 6 PM. This will be a MEMBERS ONLY gathering (sorry no visitors tonight).

We will have the traditional business meeting followed by a Pot Luck Dinner and a gift exchange. Wrapped Gifts should be at the approximate \$20 mark or less (inflation). Please be there on time and in high spirits for the night. It promises to have many different types of food and laughs for all.

Please R.S.V.P. by December 18, 2022 with Carol by email caroleal@verizon.net, Paula at pjdav@yahoo.com or 240-298-4215.

As a reminder, we will not meet in January or February 2023 due to the heating issues of the Old Waldorf School. So March 2023 will be the next meeting. As appropriate material is available the ROCK TALK will either be dormant or published during the winter months.

CLUB ELECTIONS

We have some changes in the leadership in the Club! Please continue to support this new leadership team in the upcoming year!!

- President** - Joe Davis
- Vice President /Programs** - Susan Knower
- Vice President / Membership** - Kurt Knower
- Treasurer** - Greta Gormley
- Secretary**: Teresa Jones
- Web Master** - Bob Davidson
- Field Trip Coordinator** - Dave Lines
- FACEBOOK Coordinator** - Kurt Knower
- ROCK TALK Editor** - Rich Simcsak

IN THIS EDITION

- Potomac River Trip report
- Meteorite Find with new Minerals
- Dinosaur Finds
- Indian Ocean Prehistoric Shark Graveyard
- Multitude of YouTube Videos of the Elements
- Websites URLs of stories related to Rock, Minerals, and Fossils!!

In the DECEMBER 2022 ROCK TALK:	
TOPIC	PAGE
Table of Contents	2
Programs / Refreshments	2
Minutes	3
Petrified Wood Collecting at Odessa, Delaware	4
An Impromptu Nanjemoy Wildlife Management Area (formerly Purse State Park) Field Trip by Dave Lines	5
Calendar of Events /Odds and Ends	8
"Alien Minerals" from Meteorite	13
A jaw-some discovery! Scientists find a Shark GRAVEYARD	15
SMRMC Staff	19
Items Wanted/For Sale	19

2023 Programs

Volunteers are WELCOMED!!

It is that time of year we begin the search for new briefers / topics for discussion at our monthly gatherings. Topics that amuse, amaze us, teach us, make us re-think, and more are needed outside the "standard" events we have scheduled. I employ the club members - please think/volunteer programs for the club. This includes those ever fantastic snacks and drinks that are brought in. Carole (or even the NEW PROGRAM COORDINATOR) will be ecstatic if you can assist in ANY WAY for programs or refreshments!!.

2022 / 2023 PROGRAMS/REFRESHMENTS SCHEDULE

MONTH	PROGRAM	REFRESHMENTS
DECEMBER 20	Christmas Party	Pot Luck
MARCH 2023	TBA	TBA
APRIL 2023	Quarry Safety - Rich Simcsak	TBA
MAY 2023	TBA	TBA

Dates are tentative. Changes are possible due to a multitude of reasons that are always beyond our control.

FACEBOOK Page Is Growing!!

Kurt is maintaining our ever growing Facebook Page and is looking for pictures of the club members collections and description of where those items were collected. This social media effort is helping share what this club is doing and can help it expand even further.

If you are not "Facebook Friendly" or "Computer Savvy", Kurt is happy to assist you in navigating these "internet waters" safely to share your stories.

NOVEMBER 2022 MINUTES**SMRMC November 2022 MINUTES**

Old Waldorf School, Waldorf, MD

Nov. 22, 2022

October Minutes submitted by Teresa.

Meeting was called to order at 7:07 pm by Joe. He began the meeting by thanking Dave for all his hard work and organizational skills which resulted in a very successful Rock, Mineral and Fossil Show 2022.

VISITORS/NEW MEMBERS: 22 Members in attendance. Visitors: James Bonds, who later joined the club and Jeff Lines, Dave's son. Awesome fossilized dinosaur bones were on display.

SECRETARY: Correction to the October Minutes which stated our speaker was Dale Greenwalt. Teresa has provided nametags for the meetings so we can all get to know each other, especially new members. She reminded everyone to pick up their nametag at the beginning of meetings and leave them in the box provided when leaving.

MEMBERSHIP: 84 members. Fourteen new members joined at the Rock Show, including families with children. The membership application form was "hidden" inside the tri-fold brochure designed by Paula.

FACEBOOK posts/members: 170 members.

WEBSITE: Bob reported that the website is up to date and encouraged members to visit the site.

NEWSLETTER: Rich published the November edition a bit early and again encouraged members to send him articles of interest.

TREASURER: Dave presented the monthly report. Regarding our Rock Show, the vendors were happy, the customers were happy and the Club made a profit.

PROGRAMS: Carole asked members to sign up to present information and also to sign up for snacks in 2023 and a sheet was passed around. Next meeting, the program will be our Annual Club Christmas Party Potluck. A signup sheet was passed to sign up for nonperishable items for the potluck such as cups, drinks, etc. and also to indicate what category of food they would bring. Joe reminded everyone to bring a rock-themed gift value approximately of \$20 to the Christmas Party for a gift exchange.

FIELD TRIP REPORT: Dave informed everyone that the upcoming trip to Odessa, Delaware to find petrified wood, originally scheduled for Nov 26 has been postponed until 17 December. No other field trips are currently scheduled, but Dave encouraged everyone to watch for blow-out tides to look for fossils at places such as Purse State Park as well as Matoaka Cabins in Saint Leonard, Calvert County on the Chesapeake Bay. It will be more likely to occur during a Dark Moon (New Moon) or during a full moon and when the wind blows hard from the Northwest. Check times for high and low tides. Winter tides are much lower than during the summer. Dave will email "short notice field trip announcements" when conditions are best.

OLD BUSINESS**ROCK, MINERAL AND FOSSIL**

SHOW highlights included vendors positive remarks and several requests to sign up for next year's show. The club made a modest profit, by significant profit.

ANNUAL CLUB CHRISTMAS PARTY

LOCATION AND TIME After some discussion about where and what day to have the Christmas Part, it was decided by consensus that our current meeting room would be the place (with emphasis on being very careful of the carpeted floor – no spills please!) Time will be from 6 PM to 9 PM on Tuesday December 20.

NOMINATING COMMITTEE UPDATE:

Carole presented the following slate of officers submitted by Polly, Paula and Carole.

President: Joe Davis

Vice President of Programs: Susan Knower

Vice President of Membership: Kurt Knower

Treasurer: Greta Gormley

Secretary: Teresa Jones

Field Trip Coordinator: Dave Lines

Webmaster: Bob Davidson

Officers were accepted by consensus.

NEW BUSINESS:

The 2023 Southern Maryland Rock, Mineral and Fossil Show will be held on Oct. 7, at the Old Waldorf School. The space has already been secured for next year.

NON PROFIT CLUB STATUS: Joe raised the question about taxes on our profits. Dave said we have a non-interest checking account. Should we pursue the becoming a Nonprofit? Drawbacks of a 501C include a long application process and high cost.

Ray Scott explained that we can become a nonprofit under the rules for Hobby Status Nonprofit 501C7 (?) and we should pursue that route as the application process is much simpler and less expensive.

ADJOURNMENT: There being no further business, a motion was made by Ralph Gamba and seconded by Ralph Boswell to adjourn the business meeting. Motion passed and we were adjourned at approximately 8 PM.

After the door prize drawing (thanks, Dave) and a brief break, Tim Smith's presentation entitled Gold Mine in Dahlonga, Ga. provided good information about the mine and its history. Thanks to Ralph and Theresa Boswell for providing delicious mini-wraps, cookies and drinks.

Petrified Wood Collecting at Odessa, Delaware

Moved to DECEMBER 17

The following is an invitation from **Bob Ertman of the Calvert Marine Museum Fossil Club to attend the Fall 2022 Petrified Wood Field Trip in Odessa, DE.**

Once again, we are going to collect petrified wood in Odessa. Your clubs are invited. Signup (for drivers only) needs to be by email directly with me, robertertman@msn.com. He will send you the directions and is so that he can be sure that everyone gets the word in case of postponement or anything else troublesome. This is a working farm! The USDA says that the usual dates for soybean harvest in Delaware are 10/22 - 11/14, usually ending by 11/25. If we need to reschedule, Dec. 3 & 17 are the likely dates.

(I don't need to know how many people there will be; even last-minute added or dropped riders are not an issue.)

**Saturday, December 17, 2022, Odessa, DE.
DATE CHANGE**

This is a John Wolf Memorial Trip. Special COVID instructions: If the CDC or the State of Delaware issue new guidelines between now & then, I'll pass them on. The pandemic is easing up but still, please stay safe and be courteous. We will be in a big field and you will have no trouble staying well apart.

Sign up by email, the earlier the better but no later than Thanksgiving, robertertman@msn.com.

And a special note: This is a working farm. If the harvest isn't in, we will have to postpone the trip.

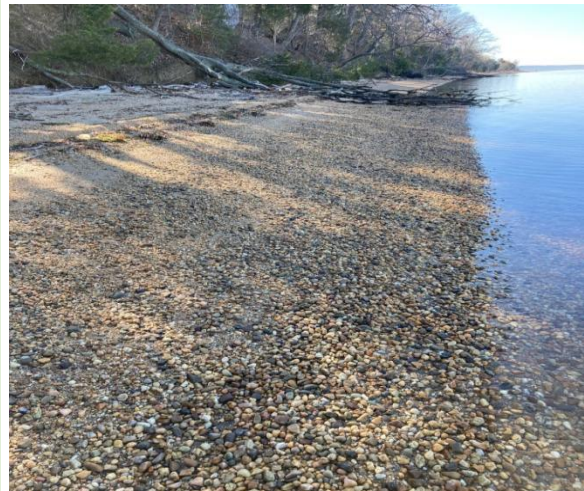
This year we will meet directly at the farm (directions at sign up), starting at 10:00 AM **(but don't go to the farm early)**

We'll walk the fields and collect petrified wood (cypress), probably originally deposited in the Cretaceous or Paleocene Rancocas Group and later re-deposited in a Pleistocene bed. (Thanks to Dr. Earl Manning, DVPS member, for correcting our previous description of the petrified wood as being Pleistocene.) No special equipment is necessary; in fact, you should leave your tools at home so that we do not do anything to cause erosion on this low-till farm. Here's a link to a nice write up about one of our trips across the road, before the school was built:

<http://viewsofthemahantango.blogspot.com/2011/08/petrified-wood-from-delaware.html>

An Impromptu Nanjemoy Wildlife Management Area (formerly Purse State Park) Field Trip by Dave Lines

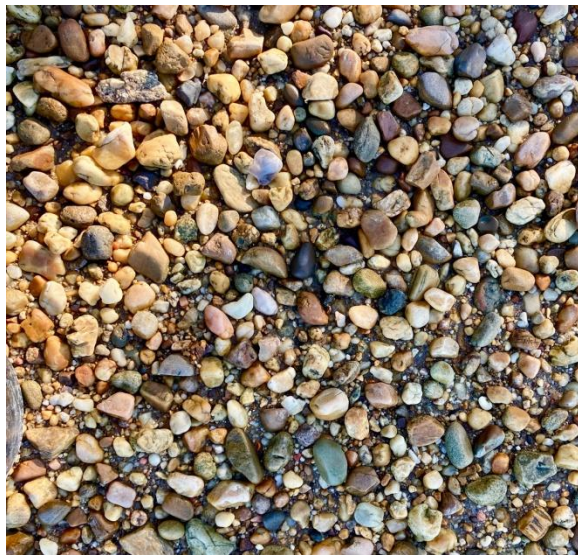
So many times, I have emailed a very short notice field trip announcement for a fossil trip during the winter months. Often as not, there is seldom any feedback from other club members who may have taken advantage of the tidal conditions and ventured out to find for some fossils. The winter months have lower low tides that the summer months because of two (2) factors --first, the gravitational pull from the moon and the sun are greater in winter because the earth is actually closer to the sun. 2nd, due to the north-south arrangement of the Chesapeake Bay, the tides are lower when the wind is from the north or northwest - a condition which occurs more often during the winter months. And from personal experience, the best months are usually November and December because the river water and the beaches are still relative warm and well above freezing --so there is no ice and snow on the beaches.



I emailed all club members early on Nov 23rd that it would be a good day to go fossil hunting because of the new moon and NW winds --- and for the Potomac River because the low tide was at mid-day in western Charles

County. So, my visiting son Jeff and I went to Purse and arrived about 10 AM. The tide was already way out and still falling. And the NW winds were very light. The river was flat calm. Perfect conditions.

Jeff and I headed downriver and spent about four (4) hours looking. We found turrutella fossil molds, Patuxent River Stone (Maryland State Gemstone) and various odd rocks, but only a few shark's teeth. My guess is that recent storms/high waves had thrown up a great deal of fresh sand on the beach, although some areas were predominantly gravel.



I noticed lots of fresh deer and coyote tracks in the beach sand. In fact, in one area there were the signs of a major fight between two (2) groups of coyotes --- perhaps over territory. For about 50 yards on the beach, the coyote tracks showed that many coyotes had been running and jumping and leaping --- the beach sand was all torn up -- and there were tufts of coyote fur laying on top --- a sure sign of a ferocious fight. You never know what you will find out there. Further down the beach I saw where a pack of six (6) coyotes had tried to ambush a group of four (4) whitetail deer. The deer had fled and out run the coyotes. Kind of creepy as to what goes on out on those lonely beaches.



Anyway, my son and I had a good day. When we returned along the beach, all those kids that came with their parents had constructed several large forts out of driftwood --- and were still building more as we passed by. Just goes to show you how different people have fun.



Calendar of Events /ODDS AND ENDS

The Rock and Gem Magazine has a webpage specifically for rock/mineral/fossil/etc shows for the United States. For those members that travel from Maryland area to get away from the cold but still have that need for a "good rock show", visit the below website and see if a show is occurring in your area of travel. The winter months are not showing any "local" shows for our area. But stay tuned for possible updates!!

<https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>

2 - Helium - A SUPERFLUID Element, THAT CAN CLIMB WALLS!

<https://www.youtube.com/watch?v=ntyh9VJvq2w>

3 - Lithium - The Lightest Metal on Earth

<https://www.youtube.com/watch?v=EvOvVuQcRRI>

4 - Beryllium - A LIGHT Metal that REFLECTS NEUTRONS!

<https://www.youtube.com/watch?v=WHsLEmuFDrY>

5 - Boron - A METALLOID WHICH PROTECTS THE NUCLEAR REACTOR!

https://www.youtube.com/watch?v=Uhw1_Mv_sHY&list=RDCMUC3j3w-oUtIAm_KI857ydvUA&index=35

6 - Carbon - The STRANGEST Element on Earth!

https://www.youtube.com/watch?v=gmKISBT_ITk

8 - Oxygen - The MOST ABUNDANT Element On EARTH!

https://www.youtube.com/watch?v=diP_ngeblxI&list=RDCMUC3j3w-oUtIAm_KI857ydvUA&index=36

10 - Neon - The Most INERT Element On EARTH!

<https://www.youtube.com/watch?v=CW7ZS4S9HZY>

11 -Sodium Metal Chemical Reactions Compilation!

<https://www.youtube.com/watch?v=WsrdE5g4z1I>

14 - Silicon - The Smartest Element on Earth!

<https://www.youtube.com/watch?v=akvr9utNCVs>

15 - Phosphorus - An Element, That IGNITES Everything AROUND IT!

<https://www.youtube.com/watch?v=NdOyFPv7TKY>

16 - Sulfur - The SMELLIEST Element ON EARTH!

<https://www.youtube.com/watch?v=mddfu3TXaRw>

18 - Argon - THE HOTTEST GAS ON EARTH!

<https://www.youtube.com/watch?v=b3TrEGlpttI>

21 - Scandium - A Metal that Produces STRANGE SOUNDS!

<https://www.youtube.com/watch?v=Dh9QcKKObQE>

22 - Titanium - The STRONGEST METAL On Earth!

<https://www.youtube.com/watch?v=ptAR3allc7U>

23 - Vanadium - The Chameleon Metal!

<https://www.youtube.com/watch?v=eySYRB4OUZ4>

24 - Chromium - The HARDEST METAL ON EARTH!

<https://www.youtube.com/watch?v=JHs150cSTVc>

25 - Manganese - A METAL, Which HEALS INJURIES!

<https://www.youtube.com/watch?v=9ZLcpb0FmFE>

26 - Iron - THE MOST NEEDED METAL ON EARTH!

<https://www.youtube.com/watch?v=uAMMQv0rKFI>

27 - Cobalt - A METAL FROM CAT'S LITTER!

<https://www.youtube.com/watch?v=yvWKeYOdWbo>

29 - Copper - The FIRST Metal MASTERED BY A MAN!

<https://www.youtube.com/watch?v=fyUWYpWkwlw>

30 - Zinc - A METAL WHICH GIVES MANHOOD!

<https://www.youtube.com/watch?v=ju6gGLxq99k>

32 - Germanium - THE MOST FUTURISTIC ELEMENT!

https://www.youtube.com/watch?v=2xylv_hijXw

35 - Bromine - THE UNIQUE LIQUID ELEMENT!

https://www.youtube.com/watch?v=1CtnJtYcm_M

37 - Rubidium - Metal, that is More Expensive than GOLD!

<https://www.youtube.com/watch?v=gOP-A23m3IE>

38 - Strontium - Metal that Absorbs X-RAYS!

https://www.youtube.com/watch?v=28guL5UQfOQ&list=RDCMUC3j3w-oUtIAm_KI857ydvUA&index=36

39 - Ytterbium - A METAL THAT BROUGHT ME TO SWEDEN!

<https://www.youtube.com/watch?v=ivC-dBZvAkU>

40 - Zirconium - A Metal for the NUCLEAR REACTOR!

<https://www.youtube.com/watch?v=yIBbrk56KwQ>

41 - Niobium - A Metal Which REPLACES GOLD!

<https://www.youtube.com/watch?v=K90HPbVZOQ4>

42 - Molybdenum - A Metal That Forms Weird Solutions!

<https://www.youtube.com/watch?v=fuhZFODtevw>

43 - Technetium - The First SYNTHETIC Metal on EARTH

<https://www.youtube.com/watch?v=Hu42SH5iAps>

44 - Ruthenium - The MOST MYSTERIOUS METAL ON EARTH!

<https://www.youtube.com/watch?v=xtY6BpT4DTY>

46 - PALLADIUM Documentary: Mining, Science and History

<https://www.youtube.com/watch?v=uPkOts9jKQE>

46 - Palladium - THE NASTIEST METAL ON EARTH!

<https://www.youtube.com/watch?v=FC-OBI9Eiiw>

47 - Silver - THE MOST REFLECTIVE METAL!

https://www.youtube.com/watch?v=v-L4lUrEUll&list=RDCMUC3j3w-oUtlAm_KI857ydvUA&index=35

48 - Cadmium - A TOXIC Metal From Old Batteries!

<https://www.youtube.com/watch?v=J3XjitEH2oU>

49 - Indium - Metal, That You Can Bite!

https://www.youtube.com/watch?v=mjiP5Q6g_aM

50 - Tin - A Metal That DESTROYS ITSELF!

https://www.youtube.com/watch?v=Q9zdt-rOB0Y&list=RDCMUC3j3w-oUtlAm_KI857ydvUA&index=36

51 - Antimony - THE MOST EXPLOSIVE ELEMENT ON EARTH!

https://www.youtube.com/watch?v=BBzUYptG1_o&list=RDCMUC3j3w-oUtlAm_KI857ydvUA&index=30

52 - Tellurium - THE MOST INSIDIOUS ELEMENT ON EARTH!

<https://www.youtube.com/watch?v=HGsfcbXd1hA>

53 - Iodine - THE MOST COLOURFUL ELEMENT ON EARTH!

https://www.youtube.com/watch?v=_e194ZAxwko

55 - Cesium - The most ACTIVE metal on EARTH!

<https://www.youtube.com/watch?v=ytxx95g-kiA>

56 - Barium - A Metal From The VACUUM TUBE!

<https://www.youtube.com/watch?v=dtWVaYXD9xA>

57 - Lanthanum - A metal is Used To Make OPTICAL FIBER!

<https://www.youtube.com/watch?v=0YhbvVhAudE>

58 - Cerium - A Metal, which forms BRIGHT SPARKS!

<https://www.youtube.com/watch?v=HSa9MvYc90E>

59 - Praseodymium - A Metal that SLOWS The SPEED OF LIGHT!

https://www.youtube.com/watch?v=FHDv-VjDWeE&list=RDCMUC3j3w-oUtlAm_KI857ydvUA&index=31

60 - Neodymium - A METAL Is Used to Make MAGNETS

<https://www.youtube.com/watch?v=SoxHTC od9Fc>

62 - Samarium - A Metal Which HELPS HEAL CANCER!

<https://www.youtube.com/watch?v=d-RbpEIHJRI>

63 - Europium - A Metal That PROTECTS EURO!

<https://www.youtube.com/watch?v=uC4nn2Ku63c>

66 - Dysprosium - THE MOST MUSICAL METAL ON EARTH!

<https://www.youtube.com/watch?v=uc4EVhl-EuY>

64 - Gadolinium - THE COLDEST METAL ON EARTH!

<https://www.youtube.com/watch?v=jDZU5urVQTY>

67 - Holmium - THE MOST MAGNETIC METAL ON EARTH!

<https://www.youtube.com/watch?v=v5CNMTfWVJ8>

68 - Erbium - A Metal, Which CREATES QUANTUM INTERNET!

<https://www.youtube.com/watch?v=zJ7SfFTUqgQ>

69 - Thulium - The RAREST AMONG THE RARE Earth Metals!

<https://www.youtube.com/watch?v=DyStjcP-ppw>

71 - Lutetium - THE MOST EXPENSIVE RARE-EARTH METAL.

<https://www.youtube.com/watch?v=Z6HYAISdR2g>

72 - Hafnium - The Last Stable Metal On Earth!

https://www.youtube.com/watch?v=-jLX2D_tta0

74 - Tungsten - The MOST REFRACTORY Metal ON EARTH!

<https://www.youtube.com/watch?v=6XxcVg2Dfck>

75 - Rhenium - A METAL WITHOUT WHICH THERE WOULDN'T BE GASOLINE!

<https://www.youtube.com/watch?v=Duk20wEVgJQ>

76 - Osmium - The DENSEST Metal On Earth!

https://www.youtube.com/watch?v=D9C_lbivcn4

77 - Iridium - The MOST RARE Metal on Earth!

<https://www.youtube.com/watch?v=lGy1vGnYAak>

78 - Platinum - The MOST PRECIOUS Metal on EARTH!

<https://www.youtube.com/watch?v=vhPu-3b0FnY>

79 - Gold - THE MOST CORROSION RESISTANT METAL!

<https://www.youtube.com/watch?v=reMP1aP8Tgg>

80 - Mercury - The STRANGEST LIQUID METAL!

<https://www.youtube.com/watch?v=PFf0SBuzLMQ>

81 - Thallium - The MOST TOXIC METAL ON EARTH!

<https://www.youtube.com/watch?v=ZvgrXJwMm8I>

83 - Bismuth - A METAL To GROW CRYSTALS.

<https://www.youtube.com/watch?v=E7uiSTa1kXQ>

84 - Polonium - Super Radioactive METAL!

<https://www.youtube.com/watch?v=K97oJed15j0>

88 - Radium - The MOST RADIOACTIVE Metal ON EARTH!

https://www.youtube.com/watch?v=l_1XelLa1eo

90 - Thorium - A METAL THAT NO ONE NEEDS!

https://www.youtube.com/watch?v=zjDw1VWJ_RU

92 - Uranium - THE MOST DANGEROUS METAL ON EARTH!

<https://www.youtube.com/watch?v=Kkd2bYAVtOU>

94 - Plutonium - The MOST GUARDED Metal on Earth!

<https://www.youtube.com/watch?v=87TpxxFdzQU>

95 - Americium - A Metal, That Can VISUALIZE RADIATION!

https://www.youtube.com/watch?v=ScH1PCPr0SA&list=RDCMUC3j3w-oUtlAm_KI857ydvUA&index=2

108 - Hassium - THE MOST VOLATILE METAL ON EARTH!

<https://www.youtube.com/watch?v=nF5B13Y5taQ>

112 - Copernicium - Probably The Most Inert Metal On Earth!

https://www.youtube.com/watch?v=S3n_DBNMoqY

113 - Nihonium - THE MOST EXPENSIVE METAL IN THE UNIVERSE!

<https://www.youtube.com/watch?v=3zC4CW1lbdQ>

Meet Barbara: Skeleton of a PREGNANT T-rex that lived 66 million years ago will be unveiled to the public for the first time at a New Zealand museum

<https://www.dailymail.co.uk/sciencetech/article-11478103/Skeleton-PREGNANT-T-rex-unveiled-public-time-month.html>

Terrifying 6ft-long creature with bone crushing jaws that could snap animals in HALF roamed Iowa 340 million years ago – and was the 'T.rex of its time', study finds

<https://www.dailymail.co.uk/sciencetech/article-11476729/Terrifying-6ft-long-creature-bone-crushing-jaws-roamed-iowa-340-million-years-ago.html>

Dinosaur senior: Enormous skeleton of prehistoric beast larger than a blue whale and heavier than Dippy the diplodocus will go on show at history museum

<https://www.dailymail.co.uk/news/article-11475385/Dinosaur-senior-Enormous-skeleton-history-museum.html>

Perfect fossil of 8ft-long ichthyosaur preserved for 180 million years before it was discovered during construction of high-speed rail line is tipped to sell for over £500,000

<https://www.dailymail.co.uk/sciencetech/article-11465795/Fossil-8ft-long-ichthyosaurus-preserved-180-million-years-tipped-sell-500-000.html>

The 'ultimate trophy': One of the most complete Tyrannosaurus rex skulls ever found could sell for up to \$20 MILLION at auction next month

<https://www.dailymail.co.uk/sciencetech/article-11403533/T-rex-skull-unearthed-South-Dakota-auctioned-NY.html>

The original King of the Dinosaurs! 'Frightful' tyrannosaur with HORNS around its eyes roamed North America 76 million years ago – and was an ancient ancestor of T.rex

<https://www.dailymail.co.uk/sciencetech/article-11481431/Tyrannosaur-horns-eyes-roamed-North-America-76-million-years-ago.html>

China JUST ANNOUNCED Their Largest Insane Coal Mines That Will Change The World Forever!

<https://www.youtube.com/watch?v=yC-05rVaztk>

The Rarest Element on Earth

<https://www.youtube.com/watch?v=zv6erfOVuCQ>

Blink and you'd miss it! Diplodocids could move their tails like bullwhips at dizzying speeds of up to 73mph, study finds

<https://www.dailymail.co.uk/sciencetech/article-11516419/Diplodocids-tails-like-bullwhips-speeds-73mph-study-finds.html>

Two 'alien' minerals never before seen on Earth are discovered in a 14-ton meteorite that crashed in Somalia two years ago

<https://www.dailymail.co.uk/sciencetech/article-11482917/Two-minerals-never-seen-Earth-discovered-14-ton-meteorite-crashed-Africa.html>

By [STACY LIBERATORE FOR DAILYMAL.COM](#)

PUBLISHED: 15:55 EST, 29 November

2022 | UPDATED: 17:43 EST, 29 November 2022

The minerals were identified in the ninth-largest meteorite found on Earth

The two minerals were discovered in a single two-ounce slice of the space rock

They are named elaliite and elkinstantonite, but no other details have been released

Researchers are optimistic that more new minerals could be uncovered if they take more samples from the meteorite

At least two new minerals never seen on Earth have been identified within a 14-ton meteorite found in Somalia two years ago.

The minerals were found in a single two-ounce slice of the space rock, which was sent to the University of Alberta, believed to have discovered a potential third new mineral.

The two newly discovered minerals have been named elaliite and elkinstantonite, but no other details have been released.

The meteorite, dubbed 'El Ali,' is classified as an 'Iron, IAB complex,' which is one of over 350 in that particular category - but it is the ninth largest meteorite ever found.



Two new minerals never seen on Earth were identified in a single two-ounce slice of meteorite

The meteorite was named in honor of the town where it was found, which is the name also given to the first mineral.

The second was named after Lindy Elkins-Tanton, director manager of Arizona State University's Interplanetary Initiative and principal investigator of NASA's upcoming Psyche mission.

Elkins-Tanton plans to send a probe to probe the mineral-rich asteroid for evidence of how our solar system's planets formed.

Chris Herd, a professor in the Department of Earth & Atmospheric Sciences and curator of the University of Alberta's Meteorite Collection, said in a statement: 'Whenever you find a new mineral, it means that the actual geological conditions, the chemistry of the rock, was different than what's been found before.'



The 14-ton meteorite (pictured) crashed into Semolina in 2020. It is the ninth largest ever found on Earth

'That's what makes this exciting: In this particular meteorite, you have two officially described minerals that are new to science.'

Herd is also optimistic that more new minerals could be uncovered if researchers take more samples from the meteorite.

The meteorite landed outside the town and was first discovered by camel herders who alerted experts.

The space rock is about twice as dense as a regular Earth rock and is so magnetic - nothing like this has been observed on our planet.

As Herd was analyzing the meteorite to classify it, he saw something that caught his attention.

He contacted Andrew Locock, head of the U of A's Electron Microprobe Laboratory, who has been involved in other new mineral descriptions, including Heamanite-(Ce).

'The very first day he did some analyses, he said, 'You've got at least two new minerals in there,' says Herd. 'That was phenomenal.

'Most of the time it takes a lot more work than that to say there's a new mineral.'

Locock's rapid identification was possible because the two minerals had been synthetically created before by French researchers in the 1980s.

Herd notes that 'it does not get to be called a mineral until it is found in nature.'



Researchers are optimistic that more new minerals could be uncovered if they take more samples from the meteorite

Researchers continue to examine the minerals to determine what they can tell us about the conditions in the meteorite when it formed.

'That's my expertise — how you tease out the geologic processes and the geologic history of the asteroid this rock was once part of,' said Herd.

'I never thought I'd be involved in describing brand new minerals just by virtue of working on a meteorite.'

While the future of the meteorite remains uncertain, Herd said the researchers have received news that it appears to have been moved to China in search of a potential buyer.

It remains to be seen whether additional samples will be available for scientific purposes.

A jaw-some discovery! Scientists find a shark GRAVEYARD full of fossilised teeth deep in the Indian Ocean - including a tooth from the 40ft ancestor of the giant Megalodon

<https://www.dailymail.co.uk/sciencetech/article-11517177/Shark-graveyard-fossilised-teeth-discovered-deep-Indian-Ocean.html>

Shark graveyard found with fossilised teeth of ancient ancestor of megalodon

Discovered during biodiversity surveys in two of Australia's newest marine parks

More than 750 fossilised shark teeth from range of predatory species recovered

Some teeth were from megalodon's closest relative, a shark which was 40ft long

By [SAM TONKIN FOR MAILONLINE](#)

PUBLISHED: 11:49 EST, 8 December 2022 | **UPDATED:** 11:59 EST, 8 December 2022

The megalodon was one of the most ferocious predators to have ever lived on Earth, having ruled the seas 23 million years ago.

But despite being 52ft long and weighing a whopping 61 tonnes, it is known only from fragmentary remains, such as its teeth.

What is even more interesting is what came before megalodon and evolved into the beast of the deep.

Now, scientists in Australia have gained some more insight after uncovering a

tooth that belonged to the 40ft-long ancestor and closest relative to megalodon.



Shark graveyard: The megalodon was one of the most ferocious predators to have ever lived on Earth, having ruled the seas 23 million years ago. Now, scientists in Australia have uncovered a tooth that belonged to the 40ft-long ancestor and closest relative to megalodon

It was found along with more than 750 other fossilised teeth in a shark graveyard at the bottom of the Indian Ocean.

'The teeth look to come from modern sharks, such as mako and white sharks, but also from ancient sharks including the immediate ancestor of the giant megalodon shark,' said Dr Glenn Moore, curator of Fishes at the Western Australian Museum.

'This shark evolved into the megalodon, which was the largest of all sharks but died out about 3.5 million years ago.'



Despite being 52ft long and weighing a whopping 61 tonnes, megalodon is known only from fragmentary remains, such as its teeth

Dr Moore, who was part of the team who made the discovery, said it was astounding that such a large number of teeth were collected from a relatively small area on the seafloor.

'We've also found a few mako and white shark teeth during the under way voyage but nothing like the numbers found during the previous voyage,' he added.

'It's incredible to think we've collected all these teeth in a net from the seafloor some 4 to 5 km below the ocean surface.'

Scientists, led by the Museums Victoria Research Institute, made the surprising discovery of the shark graveyard during the final trawl of a voyage at a depth of 18,000ft (5,400 metres).

This voyage was one of two biodiversity survey's of Australia's newest marine parks and was carried out by experts on the Commonwealth Scientific and

Industrial Research Organisation (CSIRO) research vessel.

As well as a shark graveyard, they also discovered the specimen of a new species of shark.

'Early in the voyage, we collected a striking small, stripey hornshark,' said shark expert Dr Will White, from CSIRO's Australian National Fish Collection.

'This species is unique to Australia, but it hasn't yet been described and named.

'The specimen we collected will be incredibly important to science because we'll use it to describe the species.'

Hornsharks include the well-known Port Jackson shark and are generally slow-moving species found in shallow waters.

They spend most of the day camouflaged among rocks and seaweed on the seafloor and come out at night to feed.

However, this new species lives in water over 490ft (150 metres) deep and scientists know next to nothing about its behaviour.

Dr White said biodiversity surveys are always exciting because experts never know what they are going to find.

'Australia has a truly enormous marine estate that's home to some of the most diverse marine life on the planet but we still know very little about what lives beneath the waves,' he added.



Dr Moore, who was part of the team who made the discovery, said it was astounding that such a large number of teeth were collected from a relatively small area on the seafloor



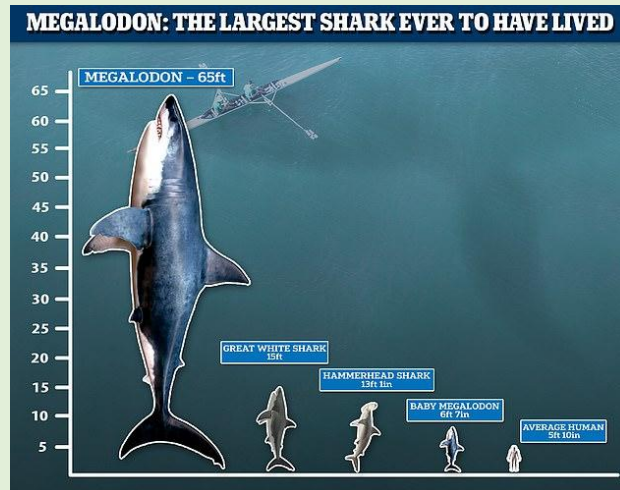
Scientists, led by the Museums Victoria Research Institute, made the surprising discovery of the shark graveyard during the final trawl of a voyage at a depth of 18,000ft (5,400 metres)



Scientists found more than 750 fossilised teeth in a shark graveyard at the bottom of the Indian Ocean

'From the very first survey on this voyage, we've been making new discoveries and collecting data that will be vital in helping to protect and conserve the life in our oceans.'

Scientists have used a range of equipment to study marine life and seabed habitats in the Indian Ocean, including underwater towed and remote cameras.



Previous studies suggest the megalodon reached lengths of at least 50ft (15 metres) and possibly as much as 65ft (20 metres)

Several shark species have been captured on film during the voyage.

Dr John Keesing, from CSIRO, said the discovery of a new species was quite common on biodiversity surveys such as this one.

'It's been estimated that around a third of the species collected on recent biodiversity survey voyages on RV Investigator may be new to science,' he added.

'The discoveries we make aren't just limited to new species. These voyages give us the opportunity to learn more about marine ecosystems, as well as species range, abundance and behaviour.'

The discoveries emphasise the importance of marine biodiversity survey voyages and the significant contribution they make to better understanding the life in our oceans.



The voyage was one of two biodiversity survey's of Australia's newest marine parks and was carried out by experts on the Commonwealth Scientific and Industrial Research Organisation (CSIRO) research vessel

'From small, new, bottom-dwelling sharks, to massive ancient mega-sharks that once roamed the oceans, these biodiversity surveys give us vital insights into the life in our oceans,' Dr Keesing said.

Parks Australia's Jason Mundy said the discoveries will help to manage the remote marine parks, now and into the future.

'It shows there is more to learn about our 60 Australian Marine Parks, especially those in deep and difficult to access environments,' he added.

'This is made possible through partnerships with research organisations and universities.'

Rock Talk Editor's Note: *Could they have just found the site of the Elusive Prehistoric Shark School of Dentistry and these were the infected teeth that were extracted???*



The Southern Maryland Rock and Mineral Club
Meetings take place on the 4th Tuesday of each month at
7:00pm
Held at the OLD WALDORF SCHOOL
Next to the Waldorf JayCees Hall
3074 Crain Highway, Waldorf, MD 20601
North of the RT 301 / RT 5 intersection
We're on the web: SMRMC.ORG

SMRMC OFFICERS	
PRESIDENT Joe Davis	
Programs / Vice President Susan Knower	Membership / Vice President Kurt Knower
Secretary Teresa Jones	Webmaster Bob Davidson
Field Trip Chairman David Lines	Treasurer Greta Gormley
Rock Talk Editor Rich Simcsak	FACEBOOK Coordinator Kurt Knower

ITEMS WANTED/FOR SALE

For Sale – Virginia Unakite slabs (approx ¼ inch thick) – \$0.50 per square inch (this is half off regular price). Call Dave (240) 427-7062

