

ROCK TALK



White Mountain Gem & Mineral Club
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November 2025

PRESIDENT'S LETTER

Another action-packed meeting! Welcome guests Julie, Frank, Ashlynn, Doug, Jodi, and Marvin. Good to see so many members in attendance. Thank you Jodi and Marvin for sharing information from the federation about publication awards. As the state representative, Jodi would like to see more entries from various clubs including ours. We publish a lot of cool stuff!

Thanks to our new and returning board members. I will be stepping down as president and Donna will be stepping up. I am not going too far since I will be First Vice President. We have a number of positions open. Two which are vital to our organization - Media Coordinator/Editor and Show Chair! Training and support is available for both positions, so you won't be alone.

By the way, if you would like to be a presenter at a club meeting next year, please let me know. There are nine opportunities.

Next month is our holiday party! Plan to bring a dish to share. The club will provide the turkey and ham. Please bring a \$10 gift for the gift exchange. It should be related to our hobby. Shelly promises to make it a fun event. We will also have the year-end prize drawings. Every time you do something above and beyond attending the meeting, you get an entry.

Trivia - Made from sedimentary limestone and found in large blocks without foliation (metamorphic layering), marble is great to carve. It was a favorite for triumphal buildings during the Roman Empire. Its waxy and clear complexion drives artists and architects wild. Marble can often be found in kitchen counters, fireplaces and tiles.

Thanksgiving is a time of thinking about what we are thankful for. I am thankful for all of you.
Sandra



TREASURER'S REPORT

October Expense

Rock Talk Printing, Postage
Webmaster Fees
Meeting Supplies

Upcoming Expense

Rock Talk Printing, Postage

Income This Month

Member Badges
50/50 Raffle

BULLETIN BOARD

Happy November Birthday

Susan Bigham

Nico Calvo

Liam and Sam Dietert

Taylor Hamilton

Meg McDonald

Natalee Nixon

Kayden Olson

Larry Pederson

Hope Rubi

Editor's Notes:

The "Let's Do Lunch" group will take a break for the holidays and return in January.

It's time to renew membership! A membership application form is on Page 9. It can be printed off and filled in if you wish, and forms will also be available at the meetings.

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Congratulations To Our Club Officers for 2026

President—Donna Pollard

Vice President—Sandra Angelo

2nd Vice President—Debbie Trimble

Secretary—Shelly Applegate

Treasurer—Kim Whitley

Media Coordinator/Editor—Open

Field Trip Co-Chairs:

Dick Turpin

Ursula Wilson

Members at Large:

Carl Hickman

Terry Pollard

Hope Rubi

Ursula Wilson

Rock Talk Newsletter

Our newsletter is published monthly by the White Mountain Gem & Mineral Club, Inc. Any information or comments members wish to include in the monthly newsletter must be given to the editor at the general membership meeting or call the editor no later than Tuesday following the meeting.

Membership Dues

Membership dues are \$20 for a single membership and \$25 for a couple/family. (\$5 less if you receive newsletter by email.) Dues are paid in January each year along with a completed application form. Memberships initiated in November or later in a given year are also good for the following year.

Meetings

We meet the first Sunday of the month (unless it falls on a holiday) at the VFW Post 9907, 381 North Central Avenue in Show Low. Turn north off the Deuce of Clubs at Burger King. Social half hour at 1:00 PM, meeting starts at 1:30 PM.

ELECTED OFFICERS

Office	Name	Phone	E-Mail
PRESIDENT	Sandra Angelo	(928)537-3726	sandra_angelo@hotmail.com
VICE PRESIDENT	Debbie Trimble	(520)400-6527	dltrimble076@aol.com
2ND VICE PRESIDENT	Mike Soboleske	(952)242-6115	Fritso53@gmail.com
SECRETARY	Shelly Applegate	(928)245-4300	shellylynn@gmail.com
TREASURER	Kim Whitley	(928)853-4455	kimwhitley@gmail.com
EDITOR	B.G. Hogarth	(928)532-3043 Cell-(775)397-2312	hogarths@citlink.net
FIELD TRIPS	Dick Turpin	(480)240-0995	dickturpinaz@gmail.com
	Rick Palmer	(928)333-5019	palmer57@frontiernet.net

Members at Large

Hope Rubi	(928)228-8851
Terry Pollard	(480)431-0686
Ursula Wilson	(928)532-5703
Carl Hickman	(928)536-3744

Volunteer Positions

Webmaster/Coalition Chair	Aimee Webster	(602)503-8417	afwebster61@gmail.com
Show Chairman	Cathy Cargile	(714)348-9162	sky ranch5734@yahoo.com
Assistant Show Chairman	Ursula Wilson	(928)532-5703	
Sunshine	Donna Pollard	480-600-2714	tdpollard@msn.com
Education, Schools	Open		
Greeter/Door Prizes/Raffle	Thelma Gray/Diane Moten		
Auctioneer	Donna and Terry Pollard		
Highway Cleanup	Brookie/ Larry Embry	(928)537-0760	
Bonus Prizes	Sandra Angelo	(928)537-3726	
Historian	Donna Pollard	(480)600-2714	tdpollard@msn.com
Librarian	Rick Palmer	(928)333-5019	palmer57@frontiernet.net
Meeting Room Setup/cleanup	Shelly Applegate	(928)245-4300	shellylynn@gmail.com

Chamber of Commerce Liaisons

Show Low: B.G. Hogarth

Snowflake/Taylor: Karen Hickman

Springerville/Eager: Rick Palmer

Heber/Overgaard: Aimee Webster

WHITE MOUNTAIN GEM & MINERAL CLUB

MEETING MINUTES NOVEMBER 2, 2025

The meeting began at 1:34 PM led by President Sandra Angelo. The meeting began with the Pledge of Allegiance and greetings to our guests and new members. Guests included Ashlyn Wiltbank, Frank and Julie Wolf, Doug Wolfe, Jodi Brewster, and Marvin Sawaia.

For Show and Tell, Jodi and Marvin showed a large chunk of calcite and yellow cat agate they found in Grand Junction, Colorado. Rollo showed fossils from the Payson area including beautiful big pieces of coral and a huge piece of spaghetti coral. Greg showed petrified wood from our St. Johns property. Debbie had beads and jewelry she acquired from a private sale. Doug Wolfe mentioned that his dinosaur exhibit has been moved to the Show Low Chamber. He also recommended two books for rock hounds: "Dawn of the Dinosaurs" and "New Mexico Museum of Natural Science Journal."

Jodi (who is State Director for Arizona and Nevada in the Rocky Mountain Federation of Mineralogical Societies) and Marvin talked about awards presented at the recent American Federation of Mineralogical Societies (AFMS) and Rocky Mountain Federation (RMFMS) joint conference. Awards include various publications including photos, articles, poetry, and youth entries.

Door prize winners were Marvin (amethyst), Myra (yellow cat agate), and Brookie (yellow cat agate).

50/50 drawing winners were Malcolm, Debbie, Terry, and Bea.

Minutes were approved and the Treasurers Report showed that financially we continue to be in good shape. The board will build the 2026 budget in time for the January meeting.

New board members were elected. We still need a media coordinator and a show chairperson.

President Sandra Angelo made her reports. There was nothing to report from either the board or new/old business.

Donna asked those attending field trips to please send photos to her. They can then be included in our yearbook and newsletter.

Carl reminded everyone to be aware of email and text scams. We will never ask you to cover a club expense either with cash or gift cards. Also, our club does not use electronic transfers or credit/debit cards.

NPC's Talon Art Gallery will feature an exhibit designed by Doug beginning in January. The exhibit includes everything from pretty rocks to how to build a dinosaur.

There being no further business to discuss, the meeting was adjourned at 3:20 PM.

Respectfully submitted.

Shelly Applegate, Secretary



ROCK OF THE MONTH

SPHALERITE



Sphalerite, Combining Geology and Engineering

Story by Karin Olson Hoal • 4mo •

Sphalerite is a zinc sulfide ore that can also contain a treasure trove of critical minerals. Credit: <https://www.mindat.org/min-3727.html>

Sphalerite is a very cool mineral. It's beautiful, complex and diverse zinc sulfide (ZnS) mineral that hosts a treasure trove of other critical elements. These include manganese, cadmium, mercury, indium, thallium, gallium, germanium, antimony, tin, lead, silver and cobalt.

It is the main mineral resource of zinc. While not on Australia's critical mineral list yet, zinc is on the U.S. critical minerals list and is important across many technologies, from galvanized steel to solar photovoltaic panels and battery storage.

Sphalerite occurs in many different ore deposit types, from sedimentary deposits to ancient volcanic regions, and new ores forming on the modern sea floor. It has even been found in meteorites originating from the formation of the solar nebula about 4.5 billion years ago.

Prized as gemstones by some, sphalerite comes in an array of colors. From colorless to deep brown, the spectrum of color reflects other elements in its crystal structure. It is this quality of sphalerite to accommodate so many other elements that is gaining attention.

Studying sphalerite is helping geologists to understand more about ore-forming fluid processes and opening up ways to extract more value from mineral resources to unlock these critical materials.

Untapped Potential Of Sphalerite Byproducts

The untapped potential of sphalerite is an example of mineral processing and extraction often focusing on one or two elements of interest. This ignores other potential valuable

components present in minerals and the ores. It is more cost-effective to focus mineral processing activities on main commodities rather than fully understand and characterize whole ores for other potential value.

Consequently, many of our important, strategic and critical elements may be currently residing above ground in low-grade resources such as tailings and rock piles.

Many historical sites may have extracted only one to two percent of the ore, leaving 98% of it as readily available, pre-crushed, above-ground, underutilized, new potential value.

Engineering More Value From Potential Resources

Some zinc mines have sphalerite crystals that can be meters in size, containing significant amounts of cadmium, germanium, indium and gallium.

Some smelters have significant germanium slag resources from processing zinc ores, as well as tellurium from coexisting copper minerals.

These elements are important for electronics, semiconductors, and solar energy technologies.

The Goal of the Author

That is where my work comes in: I'm visiting CSIRO from Cornell University for six months as the Fulbright Australia-US Chair in Science, Technology and Innovation applying my field of geomet to environmental, social and governance (ESG) activities. Geomet links geological information with engineering and downstream impacts to reduce risk, create opportunities for sustainable mineral resource development, and engage local communities to be economically empowered.

(Continued on Page 6)

(Sphalerite, Continued from Page 5)

My work links the full characterization of materials to better designed less wasteful mineral resources practices. It opens the door for value to be reclaimed from historical slag heaps and mining byproducts and embeds ESG into future resource recovery campaigns.

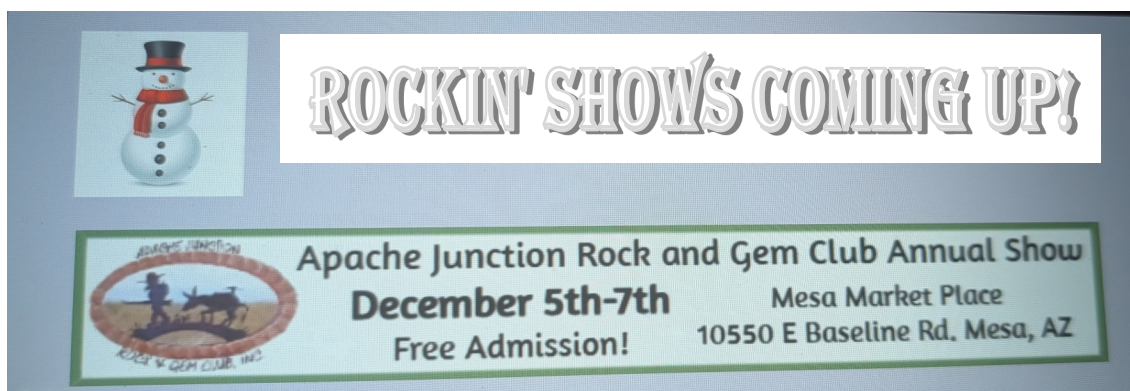
I believe it is our responsibility as geologists to not only understand the geology, but also to use that knowledge to ensure that the whole minerals value chain carefully works to gain the full value of the materials to help all of our stakeholders.

Linking up geology and engineering solutions improves resource recovery and reduces impacts on the environment.

Extraction of minerals from the earth brings them into circulation for humanity. We are just trying to maximize that value for the long term, continuing round and round in the ultimate circular system.

After all, as George Wetherill said, we are all made of stardust.

Provided by CSIRO This story was originally published on Phys.org.



November 2025

8-8—MIAMI, ARIZONA: Show and sale; Gila County Gem & Mineral Society; Bullion Plaza Cultural Center & Museum Lawn, 150 Plaza Circle; Sat. 9-2; Free Admission; Vendors selling a variety of gems, minerals, jewelry, rocks and more. Wheel of Fortune. Visit with rockhounds & jewelry makers! Popcorn & beverages for purchase. Gila Hog's BBQ Food Truck will be on site. Interested in being a vendor - 8-foot table space \$10 each; contact Beverly Hawkins, (928) 363-0345; Email: gilagem.shows; Website: <https://gilagem.org/>

8-9—LAKE HAVASU CITY, ARIZONA: Annual show; Lake Havasu Gem & Mineral Society; Aquatic Center, 100 Park Ave; Sat. 9-5, Sun. 9-4; \$5 under 12 free; 55th Annual Gem & Mineral Show - The show features minerals, fossils, rocks, gems, and jewelry. Geode cracking, door prizes, and raffles. Food available. Family fun; contact Lake Havasu Gem & Mineral Society, (928) 733-6270; Email: lakehavasugmsociety@gmail.com; Website: lakehavasugms.com

29-30—WICKENBURG, ARIZONA: Annual show; Wickenburg AZ Gem & Mineral Society; Hassayampa Elementary School, 195 E Coconino St; Sat. 9-5, Sun. 10-4; Free for Everyone; This show is packed with vendors inside and outside! Over 30 knowledgeable vendors. Free door prizes at each hour. Great raffle prizes help support the club's \$3000 annual scholarship to a local high school student; contact Wickenburg Gem & Mineral Society; Email: Wickenburggemmineral@gmail.com; Website: wickenburggms.org/



NOVEMBER FIELD TRIP FOREST LAKES FOSSILS AND ZEBRA CHERT

Field Trip Leader: Dick Turpin 480-240-0995 dickturpinaz@gmail.com

Date: Saturday, November 22, 2025

Location of the Field Trip Site: We will be going to the fossil site west of Forest Lakes on FR237 and then to the Sharpe Creek site.

Where and When We Will Meet: We will meet at the Show Low Chamber of Commerce at 8:00 AM and depart around 8:15.

Recommended Vehicle: Any vehicle can reach the fossil site. Getting to the zebra chert collecting area requires a high-clearance, 4-wheel-drive vehicle. There is plenty of parking at the beginning of the zebra chert road. We will carpool from this area so everyone who would like to collect the chert can do so.

What we will collect: We will be collecting clam fossils and zebra chert.

Recommended Things to Take: Buckets, rock hammer, grabber, digging tools, water, lunch, sunscreen.

Cell Phone Service: The site is moderately remote and likely has limited cell service.

Directions: From Show Low, take Highway 260 to Forest Lakes. A few miles west of Forest Lakes near milepost 268, turn right onto FR 237. If you pass under the large power line with the big red ball, you missed the turn. Make a U-turn and go back to FR 273.



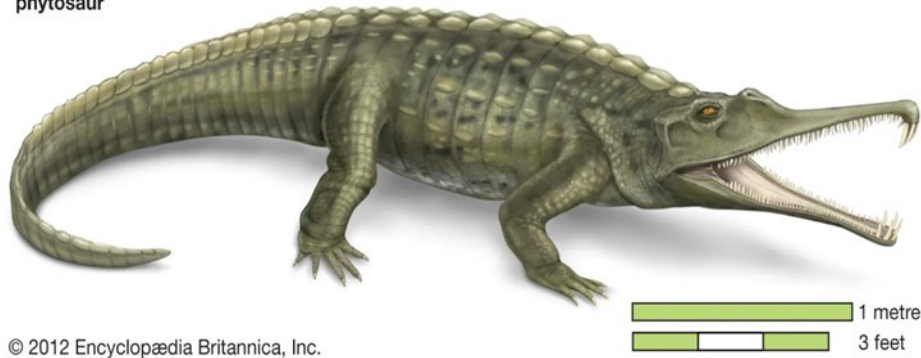
AND A FURTHER NOTE FOR THOSE INTERESTED IN PERIDOT

Lynne Erickson has been working with Steven Joey from San Carlos for a trip to collect peridot. The trip will be the morning of Saturday, November 15 unless it rains. The cost is \$50 each for two to three hours of hounding. **Surface collecting only; no digging is allowed.** The trip is limited to 15 people. We will need to stop in Globe for reservation passes. Mr. Joey would like us to carpool as there isn't enough parking for everyone. Lynne has a list of 15 people already signed up but she is keeping a list of alternates in case someone cancels. She can be reached at 520-401-1202.

NOTE: ALL parties must download and pay for a \$10 reservation pass **BEFORE** you arrive at the owner's home. To purchase, go to: sancarlos.nagfa.net/new-online

Reason for visit: taking a tour.

phytosaur



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By Dick Turpin

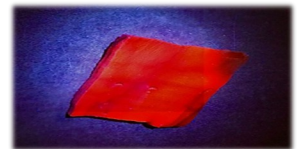
HUNTING THE MIGHTY PHYTOSAUR

The morning of October 25 started clear and cool with 34 degrees displayed on the dashboard. Some golf course fairways showed the first frost of the season. Expectations were for a high in the mid-60s by noon. A good-sized group of club members gathered at the Dollar General, and a few more met up with the gang in St John for a total of 17 energetic rockhounds.

After a short drive to the St. John's dump, the group scattered over the steep, cinder-covered hills, looking for the fossilized bones of an ancient reptile called a *Phytosaur*. The vertebrae of this crocodilian-like animal were so abundant that, within the first few minutes, most hunters had several of various sizes in their buckets. Some post-trip research found that the name "Phytosaur" translates to "plant lizard." This early name was an error resulting from misidentification in 1825 of the teeth as belonging to a vegetarian. Later studies found that, like modern alligators and crocodiles, the Phytosaurs were vicious carnivores.

The bedrock in the collecting area is part of the Chinle Formation that was deposited during the late Triassic Period about 200-230 million years ago. This age is consistent with the age of the Phytosaur fossils we found. The environment in which the Chinle strata were laid down was a system of rivers, lakes, and swamps very similar to that of modern-day Florida. While it is logical to think that Phytosaurs eventually evolved into today's alligators and crocodiles, this is not the case. The Phytosaurs were exterminated in a mass extinction event at the end of the Triassic. Alligators evolved separately in a process called "parallel evolution." This occurs when two different animals evolve into similar species that are not related.

In addition to the fossils we collected, the area also yielded abundant specimens of calcite that fluoresce with a bright reddish-orange color under UV light. The plates, as found, are covered with brown dirt that can be removed by soaking them in strong vinegar or diluted muriatic acid for 5-15 minutes.



As the group was collecting the calcite, Phil showed us a piece of petrified wood from a six-inch log he found. It was black, with clear, blue, red, and yellow colors. Later, Greg said he found a petrified log eroding near the top of a hill. He lacked tools large enough to extract the entire log. A small group climbed the hill and used a few smaller tools and to dig out the log, but, in the end, they were only able to gather about a dozen fist-sized pieces. We left the rest for another day when we plan to bring larger tools.



MEMBERSHIP APPLICATION

PO BOX 3504
SHOW LOW, AZ 85902

DATE: _____ NEW _____ RENEWAL _____

Printed Name(s): _____

Phone(s): _____ Brass Name Badges (\$5 each) _____

Mailing Address: _____ City: _____ Zip: _____

E-mail Address(s): _____

Type of Membership: Single (\$20) _____ Couple/Family (\$25) _____

(\$5 deduction if getting newsletter by E-mail)

Please send club newsletter by: E-mail _____ US Mail _____

May we have birthdays? (Month Only) _____

List any junior members you would like to sponsor (No added fee):

1. _____ Age: _____ 2. _____ Age: _____

3. _____ Age: _____ 4. _____ Age: _____

Signatures: _____ Date: _____

Seasonal members, please list alternate address and months of residency:

Address: _____ City: _____ Zip: _____

Months: _____ Phone: _____

Rev. 8/23

AROUND AND ABOUT IN THE MEETING ROOM

