



THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs Mineralogical Society

Founded 1936

~ Lazard Cahn ~
Honorary President

"Pick & Pack"
Volume 64 No. 5
June 2024

CSMS General Assembly

Thursday, June 20, 2024 7:00 PM
Colorado Springs Christian School
4855 Mallow Road

New Member Welcome

We're welcoming members that signed up at the show and explaining what the society does one-on-one

BRING SNACKS IF YOU CAN

Society members are always encouraged to bring specimens to general assembly to share and/ or for help with identification

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Hardy CSMS rockhounds at the April Fools claim 11 Apr 24 - Pikes Peak Region

COLORADO SPRINGS MINERALOGICAL SOCIETY PO BOX 2 COLORADO SPRINGS, COLORADO 80901-0002
Visit our website: <http://www.csms1936.com/>

CSMS Group Calendar

Jun '24	Jul '24						
12 Jun	10 Jul	Fossil Group	2nd Wed	6:00 PM	East Library Annex	Kristine Harris Richard Villareal	719-593-1524 831-760-6985
6 Jun	4 Jul	Board Meeting	1st Thur	6:00 PM	Zoom	Alex Field	719-351-4897
4 Jun	2 Jul	Pebble Pups	1st Tue	4:15 PM	East Library	David St. John	719-424-9852
20 Jun	18 Jul	General Assy	3rd Thur	7:00 PM	Co Sp Christian Sch	Alex Field	719-351-4897
27 Jun	25 Jul	Crystal Group	4th Thur	7:00 PM	Co Sp Christian Sch	Kevin Witte	719-638-7919
By appt	By appt	Faceting Group	By appt	By appt		John Massie	719-338-4276
By appt	By appt	Lapidary Group	By appt	By appt	Sharon's House	Sharon Holte	719-217-5683

Community Events (Pete Modreski)

June 7-9: Pikes Peak Gem and Mineral Show, at the Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs, sponsored by the Colorado Springs Mineralogical Society. Fri 10 AM-6 PM, Sat 10-5, Sun. 10-4.

June 13-16: A Mineralogical Symposium, sponsored by the Colorado Chapter, Friends of Mineralogy: "Mineral Oddities: Pseudomorphs, Twinning, Inclusions, and more." As has been previously announced, the Friends of Mineralogy Colorado Chapter will be hosting a symposium in 2024. The 2024 Symposium webpage is now live, with dates and preliminary details: <https://friendsofmineralogycolorado.org/symposium/>. The symposium will include field trips on June 13, a mineral photography workshop on June 14 conducted by Jeff Scovil plus an evening reception at the Colorado School of Mines Museum, and lecture sessions on June 15 + half day June 16. The lecture sessions will take place in Berthoud Hall, CSM campus. All interested persons will be welcome to register to attend. For more information about the symposium as it becomes available please see the FMCC website.

July 25-28: Fairplay Gem, Mineral, and Jewelry Show; Platte Drive, ½ mile west of US-285, Fairplay, CO; free admission and parking.

Aug 8-11: Buena Vista Contin-Tail Gem, Mineral, and Fossil Show, Buena Vista Rodeo Grounds; free admission and parking.

Aug 15-18: Woodland Park Gem & Mineral Show; located outdoors off US-24; free admission and parking.

Aug. 16-18: Lake George Gem & Mineral Show; located outdoors off US-24; free admission and parking. Sponsored by the Lake George Gem & Mineral Club.

Sept 5-8: Just Minerals and Crystals Event Denver, Denver Airport Marriott at Gateway Park, 16455 E. 40th Circle, Aurora CO. Free parking & admission.

Sept 6-14: Colorado Mineral and Fossil Fall Show, Crowne Plaza DIA, 15500 E 40th Ave., Denver CO 80239. Free admission & parking.

Sept 6-15: Denver Mineral, Fossil, Gem & Jewelry Show; Denver Expo Gem Show; and Miner's Co-op Show; all at the National Western Complex, 4655 Humboldt St., Denver. Free parking & admission.



Federation News Post

American Federation of Mineralogical Societies
Rocky Mountain Federation of Mineralogical Societies



PRESCOTT
GEM & MINERAL SHOW
20th Annual
SHOW & SALE
ROCKS • GEMS • JEWELRY

*Look for the
Fluorescent
Test!*



**AUGUST, 2nd
3rd & 4th**
FINDLAY TOYOTA EVENT CENTER
3201 N Main St - Prescott Valley
(Corner of Glassford Hill & Florentine)
FRI & SAT 9-5, SUN 9-4
Admission is Cash Only - ATM Available

FREE PARKING!
\$5 Adults
\$4 Seniors 65+, Vets, Students
Children under 12 FREE w/paid Adult
www.PrescottGemMineral.org

Sublette County Rockhounds
present their 8th annual
Gem & Mineral
Show
June 14 - 16, 2024
Friday & Saturday, 9am - 5pm
Sunday, 9am - 3pm
Sublette Co. Fairgrounds
Event Center, 10937 Hwy 351
Big Piney, Wyoming

Vendors: Opals, jade, jewelry, slabs, cabs, rough rock,
decorative items, fossils, specimens, & more!
Demonstrators Raffles Exhibits Door Prizes
Mr. Bones Dinosaur puppeteer Kid's Activities

Contact: Jim Caw/jimcaw@wyoming.com or Mike Schaffermach/PK15@gmail.com

41st Annual
GEM & MINERAL SHOW
July 27-28, 2024
SATURDAY 9 AM - 5 PM • SUNDAY 9 AM - 3 PM
Admission: \$4 per day • Children 12 and under FREE with paying adult





Hosted by: WESTERN DAKOTA GEM & MINERAL SOCIETY
CENTRAL STATES FAIRGROUNDS, Rapid City, SD
NERDY NUTS EXPO HALL

- Dealers offering Rock, mineral & fossil specimens
- Free Rock and Mineral Identification
- Silent Auction
- Children's Activities
- Hourly Door Prizes
- Panning for Gold
- Exhibits/Fluorescent Display
- Grand Prize Drawing

For more information Contact: WestDakotaRocks@gmail.com
www.WDGMs.org

Southern Utah Rock Club Presents
Cedar City Gem and Jewelry Show



September 13, 14, 15, 2024
Cross Hollow Event Center | Diamond Z Arena
11 N. Cross Hollow Road, Cedar City, Utah

FREE ADMISSION
FRIDAY: 10 am - 7 pm
SATURDAY: 10 am - 7 pm
SUNDAY: 10 am - 4 pm

www.southernutahrockclub.org
www.facebook.com/groups/utahrock

Rocks Minerals • Fossils
Jewelry • Beads
Junior Club Black Light Display

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FRIENDS OF MINERALOGY
COLORADO CHAPTER
2024 SYMPOSIUM







MINERAL ODDITIES
Twining, Pseudomorphs,
Inclusions, and more!



June 12th - 16th, 2024, at the Mines Museum
of Earth Science at Colorado School of Mines
in Golden, Colorado

Scan me for more
information and to sign
up for the mailing list!



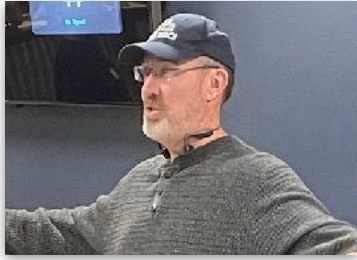
FriendsOfMineralogyColorado.org/symposium

About the AFMS - A non-profit educational federation of seven similar regional organizations of gem, mineral and lapidary societies. The purpose of AFMS is to promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary and other related subjects, and to sponsor and provide means of coordinating the work and efforts of all persons and groups interested therein; to sponsor and encourage the formation and international development of Societies and Regional Federations and by and through such means to strive toward greater international good will and fellowship. Founded in 1947.

About the RMFMS - A non-profit educational organization. The purpose of the Rocky Mountain Federation is to have a close association of all clubs in the Society to promote the study of earth sciences, including the lapidary arts, the study of fossils and paleontology, and related crafts. The RMFMS was organized in 1941, and held its first annual convention at the Argonaut Hotel in Denver, Colorado. There were 16 organizations in attendance. The RMFMS became one of the original four founders of the American Federation of Mineralogical Societies when it was organized in 1947.

Secretary's Spot

John McGrath



2024 CSMS Officers

Alex Field, President
Shane Riddle, Vice-President
John McGrath, Secretary
Ann Proctor, Treasurer
Adelaide Bahr, Membership Secretary
John Emery, Editor
Chris Burris, Member-at-Large
William Meyers, Member-at-Large
John Massie, Past President

2024 CSMS Chairpersons

Shane Riddle, Program Coordinator
John Massie, Show Vol Coordinator
Kyle Atkinson, Field Trip Coordinator
Vacant, Science Fair Chair
Frank and Ellie Rosenberg, Librarians
Tina Cox, Social Committee Chair
Ann Proctor, Store Keeper
Lisa Cooper, Show Chairman
Lisa Cooper, Webmaster
Lisa Cooper, Facebook Keeper
Mike Nelson, Federation Rep
Vacant, Federation Rep

CSMS General Assembly Minutes

7 PM, Thursday 18 May, Colorado Springs Christian School

Address: 4855 Mallow Rd, Colorado Springs CO 80907

Board Attendance: President: Alex Field, Vice President: Shane Riddle, Past President: John Massie, Secretary: John McGrath, Treasurer: Ann Proctor, Member-at-large: Chris Burris, Member-at-large: Bill Meyers.

Agenda:

- I. Meeting was called to order by our President Alex Field at 7:04 PM
- II. The Pledge of Allegiance was led by our Board Member, Bill Myers.
- III. Introduction of Guests: Jay, Elizabeth, William, Debbie
- IV. Introduction of New Members: Robin Fields
- V. Program Speaker - Nick Sandoval, US DOI BLM, Locatable Minerals.
- VI. Meeting - 58 members/guests in attendance and 8 minerals were given out.
- VII. Recent Finds - John McGrath displayed Smokey Quartz from the Rainbow Falls and Fern Creek area.
- VIII. Officer Reports
 - A. President - Alex Fields read Constitution changes to the Group for their consideration. They will need to be read to two more general meetings.
 - B. Vice - President - Shane Riddle reviewed the plans for June 20th which will be a gathering for new members with satellite group representation. The meeting will be a CSCS at 7pm.
 - C. Treasurer Ann Proctor reported that the Club is solvent.
 - D. Secretary John McGrath announced to the group that he was taking over the group emailing duties from John Emery.
 - E. Membership Secretary - Adelaide Bahr, Absent.
 - F. Editor - John Emery, Absent
 - G. Members at Large
 1. Bill Myers - Present. No report
 2. Chris Burris - Present. No report
 - H. Past President - John Massie encourage everyone to volunteer for the Gem and Mineral Show. He stated that their was an intense need for ticket takers.
 - I. Website and Show Coordinator - Lisa Cooper said show prep is going well. She's planning on running classes throughout the weekend; wire wrapping, a Brief History of the CSMS and Rockhounding 101 in the Pikes Peak region.

IX. Satellite Groups

- A. Crystal Group - Kevin Witte and Austin Cockrell were absent at the time of reporting.
- B. Faceting Group - John Massie reiterated that you only need to contact him to bring the machine to your house. He will be using it at the show.
- C. Pebble Group -David St John, Present. Had two successful outreach programs at two schools. Has a guest speaker on fluorescent minerals scheduled for the next meeting. Meetings are the first Tuesday of the month at the East Library and will continue through the Summer.
- D. Fossil Group -Kristine Harris and Richard Villareal stated that meetings are held the 2nd Wednesday of the month from 6-7:30 at the East Library Annex.
- E. Jewelry Group, no report.
- F. Lapidary Group - Sharon Holte is still looking for home for the lapidary equipment. The Board has been exploring placing the equipment in a storage unit where it could be used.

X. Liaisons

- A. Claims and Librarian -.Frank Rosenberg reported that the claims are all in order and that the Club has an extensive library at his home. The list of books is on the website.
- B. Field Trip Coordinator - Kyle Atkinson is looking for help with the Garnet trip, Royal Gulch. He does not have first hand experience with the area.
- C. Social Coordinator - Tina Cox. She did not report any new events, but thanked all for the food donations.
- D. Store Keeper - Ann Proctor said that all of the merch will be at the Show for sale.

XI. Unfinished Business - none discussed

XII. New Business - none discussed

XIII. Meeting adjourned by president Alex Field at 8:54 PM

RESPECTFULLY SUBMITTED by **John M McGrath MD COL (RET) USA**

President's Corner

Alex Field
CSMS President



2024 Satellite Group Chairs

Kevin Witte/ Bob Germano, Crystals
John Massie, Faceting
K. Harris/ R. Villareal, Fossils
J. Barglowski, Jewelry
Sharon Holte, Lapidary
Vacant, Micro-mount
Vacant, Photography
David St. John Pebble Pups

2024 Liaisons

Florissant Fossil Beds National Monument:
S.W. Veatch
Western Museum of Mining and History:
S.W. Veatch



Presidential Matters



Happy May friends!

Summer is almost here in Colorado, and you all know what that means: Digging Season is upon us. The snow is starting to melt and the mountains are opening for us to begin prospecting again—I hope you're all as excited as I am to be back out in the wilderness getting some dirt therapy and looking for cool mineral specimens.

We have a few updates this month to share:

SILENT AUCTION DONATION - In early June we have our 60th Annual Gem, Mineral, and Jewelry Show and we need mineral donations for our Silent Auction. If you have mineral specimens you'd like to donate, please bring them to our next General Assembly meeting on May 16 at 7 pm at the Colorado Springs Christian School. Or you can email Frank Rosenberg (fs_rosenberg@hotmail.com) and drop any donations off at his house. Remember: Proceeds from the Silent Auction go toward student scholarships and other society programs for members.

JEWELRY GROUP - Good news for all you wire-wrappers, beaders, and jewelry makers. We are restarting the CSMS



Messages in Stone

By Steven Wade Veatch

Those who are gone once came to this sacred place
of remote canyon walls filled with quiet grace.
They made circles of stones to pray and to fast,
to seek a vision for guidance and join with the past.

Here, seekers waited for their spirit guide to appear
who came in many forms to give strength and end fear.
The seekers knew this place where others once prayed
and had visions of power as long as they stayed.

They left sacred images to last on cosmic red rocks:
Dancers, flute players, lizards, and birds left as pecked pocks.
An eternal art on canyon walls of symbols, visions, and more
Left behind from those who came here before.

Now the clouds grow dark and are messengers of rain,
they bring a breeze scented with sage over the terrain.
An eagle soars as a guardian spirit above the canyon below
over the messages in stone only the ancients truly know.

The Moon Anchor Mine with Maricopite; but don't Pick the White Flowers

Mike Nelson
csrockguy@yahoo.com

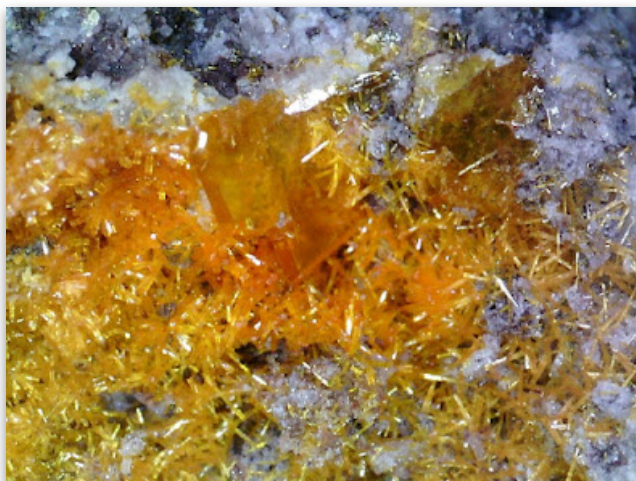
During the last couple of decades, I have spent a fair amount of time in Arizona enjoying the Tucson shows, the desert, spring baseball, great southwestern food, the rock exposures and mountains, and the lack of snow removal. When I had my RV it was easy to travel and camp in many different localities around Tucson and Phoenix ranging from state parks to boondocking. We were always enamored with the County Parks (14 of them with several camping areas) in Maricopa County, the nearby Sonoran Desert National Monument, and the next-door (Pima County) Lost Dutchman State Park.

Maricopa County is a “really, really” large county (9,224 sq. mi.) that contains the 5th largest city in the U.S (Phoenix), five Native American reserves, several mountain ranges and Wilderness Areas, and other federal and state protected areas. It seems like a “day trip” driving east-west across the county (132 miles) or north-south (103 miles).

A few years ago (Pandemic time) I decided to explore (day excursions) a couple of the Wilderness Areas in the western part of the County (no Covid bugs out there in the open spaces). By exploring, I really mean driving slowly to gaze at the Sonoran Desert (at this stage of my life I rarely venture far off the roads by myself). I slowly motored toward the Big Horn Mountains and Hummingbird Springs Wilderness Areas located west of Phoenix but still situated in Maricopa County. The intended journey was to traverse through Sonoran Desert National Monument located in the Maricopa Mountains southwest of

Phoenix and then north and northwest over to the southern part of the Gila Bend and Painted Rock Mountains. So, with plenty of water and food and a full tank of gas, off I went. I also left a detailed proposed itinerary with my spouse in Apache Junction and my brother in Tucson and a promise “not to do anything stupid.”

One of Arizona's most famous mines is the Rowley located in the northern part of the Painted Rock Mountains and a producer of magnificent blades of orange wulfenite (lead molybdate) and mimetite (lead arsenate chloride). Although commercial mining of copper, lead and other mineral commodities ceased about a century ago, the mine is patented and has consistently produced specimen minerals since that time. MinDat lists 75 valid minerals including 13 Types and several varieties of uncommon lead minerals. Of course, the Mine is posted, and collectors must receive hard-to-obtain permission. From my point of view, that is OK since my claustrophobia does not allow explorations in mines or caves or small rooms or even large areas with crowds of people! But I could observe from a distance.



Above: Wulfenite tab crowded with hundreds of tiny acicular mimetite crystals. Width FOV ~7 mm. Rowley Mine. Photo: M. Nelson.

Continued . . .



Above: Wulfenite tabs associated with hexagonal barrel shaped mimetite crystals. Rowley Mine. *Photo: M. Nelson.*



Above: Solitary crystal of wulfenite with out-of-focus mimetite crystals. Wulfenite crystal ~1mm in length. Rowley Mine. *Photo: M. Nelson.*

Further north in the Desert are the joined Hummingbird Springs and Big Horn Mountains Wilderness Areas located in the Big Horn Mountains. Few trails seem to enter the mountains and I was not about to get stranded or stuck in such a desolate area, but less than 60 miles from the 5th largest city in the U.S.!

A local rockhound I met at a Tucson show told me about an old lead-silver-gold mine, the Moon Anchor, located just to the east of

the Wilderness Areas. He thought that perhaps the dump was still open to rockhounds with a chance to collect maricopaite. Named after Maricopa County and with a nifty name like the Moon Anchor (perhaps the author of the name had “accidentally ingested some of the local Sacred Datura), who could resist a visit?



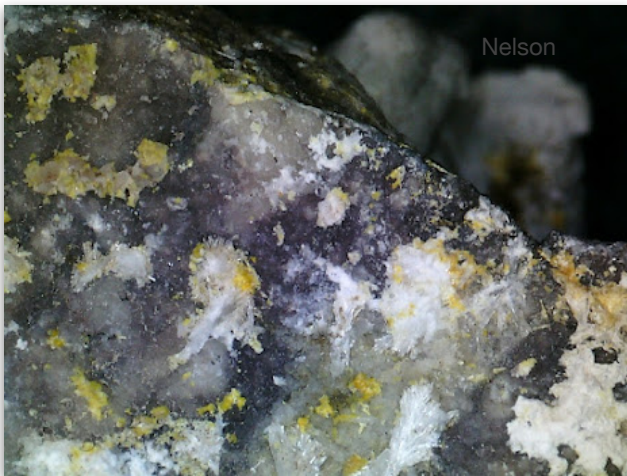
Above: Open saucer-size flower of the saucer of Sacred Datura, known to western ranchers as Jimson Weed. All parts of Datura plants contain dangerous levels of anti-cholinergic tropane alkaloids and may be fatal if ingested by humans, livestock, or pets. *Photo: Public Domain.*

So off I went but was unable to get my vehicle to the mine due to “washouts” in the trail. As previously stated, I did not want to get stranded since my knees would not allow a long walk-about as they might have endured in the past. But all was not lost as I was able to purchase a specimen of maricopaite [$\text{Pb}_7\text{Ca}_2(\text{Si},\text{Al})_{48}\text{O}_{100-32}\text{H}_2\text{O}$] collected from the only known locality in the world--the Moon Anchor. Interestingly, maricopaite is a zeolite mineral, and according to MinDat, is the only known natural zeolite with lead as an essential cation. Under a scope, the mineral appears

as a soft (~1.0--1.5 Mohs) sprays of translucent, white, acicular crystals, thin bundles of extremely elongate acicular crystals, and mats with admixed mimetite. This strange, rare, little mineral seems to pair quite nicely with the sacred Datura and the saguaro cactus.



Above: Sprays and scattered individual maricopaite crystals. FOV ~1.8 cm. Photo: M. Nelson.



Above: Sprays and sheaths of maricopaite crystals. FOV ~1.1 cm. Photo: M. Nelson.

My little field excursion was a fantastic day in the desert. The scenery was amazing, my vehicle did not break down, I remained cognizant of my abilities and did not attempt to cross roadless arroyos or drive up funny looking hills, there was no cell service but I had my topo maps, and my cool water in the jug tasted like wine—or maybe I was just dreaming about **Canned Heat** performing at

Woodstock 1969:

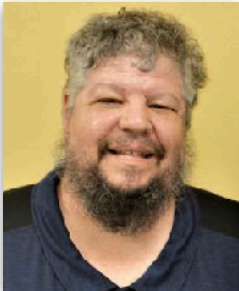
*I'm goin' up the country, baby, don't you wanna go?
I'm goin' to someplace where I've never been before
I'm goin', I'm goin' where the water tastes like wine.*



Sunset in the desert, or maybe I had tasted the Sacred Datura.



Mike is a former University professor and administrator who enjoys outdoor activities, and writing articles for the *Pick & Pack*, other rock and mineral clubs, and the Newsletter of the Rocky Mountain Federation of Mineralogical Societies (www.rmfmns.org). He also writes, and occasionally speaks, about members of the Colorado Cavalry/Infantry who participated in the march to Glorieta Pass (1862), helped settle central Kansas (1865), and later fought at Beecher Island (1868). In CSMS he heads up the Undergraduate Research Committee as introducing students to geology research is a long-time passion. But mostly he just tries to enjoy life with frosty IPAs, travel, and collecting mundane facts and pretty rocks/minerals.



Fossilfun14@gmail.com

May 7th Meeting at East Library

Our May 7th meeting at the East Library was a special request reprise lesson from January of this year due to a library schedule issue. The theme was space geology and we talked about the Eclipse in April, made craters with rocks in flour in different sizes and from different distances from the tray. We looked at meteorites, tektites, and fragments from the moon and mars. The best activity was making a moon phase out of Oreo cookies and mistakes had to be eaten. Our next meeting is in the Annex on June 4th with a special guest speaker and retired teacher Jen Johnson about fluorescent minerals and rocks. This should be amazing and colorful with free UV samples to take home.

3D Fun is the Future of Learning

Recently the pups acquired an actual size 3D raptor skull and a claw with bone sections, a Stegosaurus foot bone and track, and trilobites made from a 3D printer. Many museums are using this technology to create skulls and other fossil-like teeth, spikes, and feet/leg models. The Dinosaur Resource Center recently unveiled a new species of T-Rex, "Sir William," created with their state-of-the-art 3D printer. It went from a real bone discovery in the early 2004 to a completed skull in 2024 thanks to research and 3D innovations. Check it out, it's so cool to have this in our backyard.



Right: 3D raptor skull at Dinosaur Resource Center. Photo: D. ST. John



Thank You for the Donations

Thank you all for the donations from so many club members from sample boxes, geology books for kids, samples, outreach demonstration fossils and minerals. We went to many local elementary schools in May to encourage Earth Science topics and share our passion to learn. Our booth for the June rock show is going to be supported by so many wonderful club members and will offer some amazing activities, free samples, and learning opportunities.



wonderwoman627 at Pixabay



Above: 3D velociraptor skull and claw at Dinosaur Resource Center. Photo: D. ST. John

Left: Real fossil clams from Baculite Mesa, Pueblo, Co. donated to the pups by CSMS member-at-large Chris Burris. Photo: D. ST. John



wonderwoman627 at Pixabay

Visit the CSMS Pebble Pup website: <http://pebblepups.blogspot.com/>

Investigating A Trace Fossil on Ripple Marks in the Middle Cambrian Hickory Sandstone of Central Texas

Sawyer Blizzard, Colorado Springs Mineralogical Society, Junior Member
Nathan Peters, Grand Traverse Area Rock and Mineral Club, Junior Member
Brody Dymond, Grand Traverse Area Rock and Mineral Club, Pebble Pup
Wyatt Maeder, Grand Traverse Area Rock and Mineral Club, Pebble Pup
Hunter Maeder, Grand Traverse Area Rock and Mineral Club, Pebble Pup

Researchers collected ripple marks in the Late Cambrian age (about 500 million years old) Hickory Sandstone near Kingsland, central Texas with puzzling structures on their surface (Figure 1) (Kyle and McBride, 2014). The structures do not have a dense concentration and exhibit curved, bent, and looping shapes, suggesting a biological origin. Given their capability to bend elastically without breaking, and with the presence of short branching appendages, we interpret the structures as the burrows, or trace fossils, of some type of ancient vermiform (worm-shaped) organism moving through sediments.

The widths of the burrows remain relatively constant, and their surfaces are smooth and free from any observable ornamentation. It is our belief that these trace fossils compare with the ichnogenus *Planolites* (Collette, et al. 2011; James Hagadorn, personal communication).



Figure 1. Enigmatic trace fossils twist, turn, and branch out on the top of ripple marks on the Hickory Sandstone member of the Ft. Riley Formation. From the collection of David Regalbuto. Photo by S. W. Veatch.

In central Texas, the Hickory Sandstone is the bottom member of the Riley Formation (Figure 2.) that includes fluvial (river), shoreline, and marine (deposited during the transgression of shallow seas) layers. Kyle and McBride (2014) suggest that some of the Hickory sediments were reworked from wind-blown dunes. It is a predominantly quartz marine sandstone with some mud rock, conglomerate, and limestone, as thick as 150 m (500 ft). There is also a local ironstone layer up to 25 m (80 ft) thick (Kyle and McBride, 2014). The Hickory Sandstone is located in the Llano Uplift region and dips in all directions. It lies unconformably (missing layers of rock) on the surface of Precambrian gneiss and schist, with granitic intrusions (Teran, 2007).

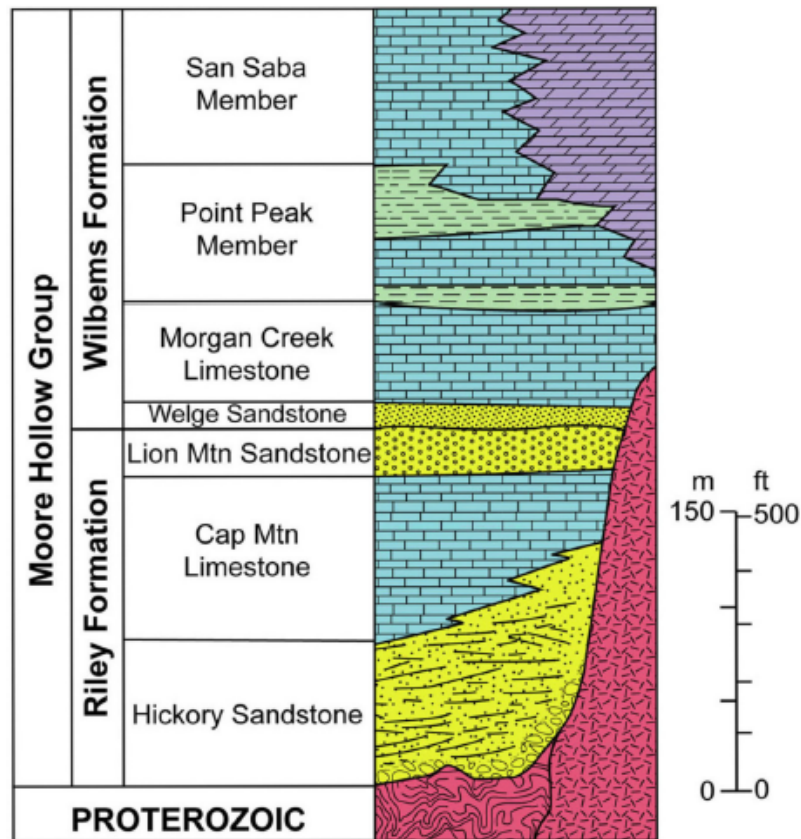


Figure 2. Stratigraphic column for the Cambrian units of the Llano Uplift of Central Texas. The Hickory Sandstone is the bottom member of Riley Formation. *Modified after Barnes and Bell (1977). From Kyle and McBride, 2014.*

The Hickory Sandstone serves as a source of industrial sand and it is used as a proppant, a gritty material with uniformly sized particles mixed in with a fluid during the fracking process. Injecting this mixture into induced fractures in the rock strata (layers) holds those fractures open for petroleum recovery. Proppants are used with more unconventional petroleum plays. The Hickory Sandstone, on the northwestern side of the Llano Uplift near Voca, Texas, is a major proppant sand production site.

Continued . . .

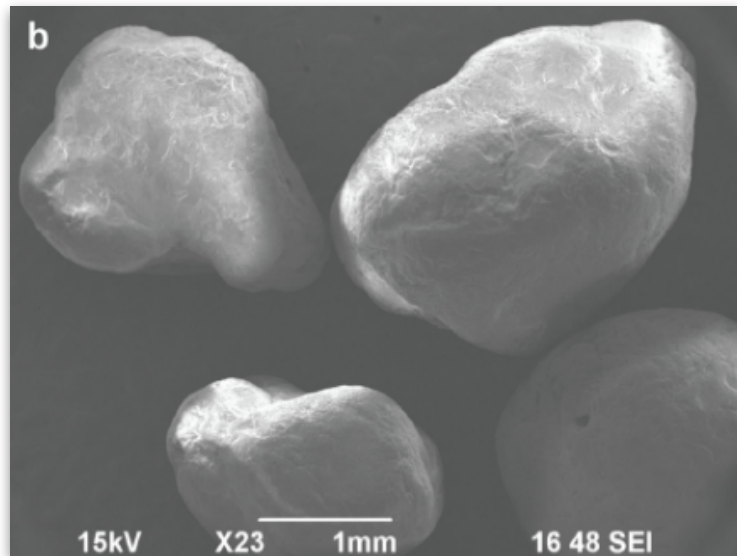


Figure 3. SEM image of well-rounded Hickory Sandstone quartz grains. The size and roundness of these grains make the Hickory an important industrial sand (proppant). From Kyle and McBride, 2014.

Previous researchers have acknowledged the presence of trace fossils in the Hickory Sandstone. Barnes and Bell (1977) linked trace fossils to the *Cruziana* ichnogenus. Cornish (1975) noted ichnofossils, including trilobite tracks, resting traces, and scratches. He also found an abundance of U-shaped burrows classified as *Diplocraterion* and *Planolites*. Wilson (2001) noted *Planolites* or possibly the meandering burrow of *Cosmorhapha*, and observed that *Diplocraterion*, *Cruziana*, and *Skolithos* occurred less frequently.

SYSTEMATIC ICHNOLOGY

Ichnogenus *Planolites* Richter 1937

cf. *Planolites*

(Figure 1)

Locality: near Kingman, Texas.

Stratigraphic horizon: Hickory Sandstone member of the Ft. Riley Formation.

Age: mid-Cambrian. *Planolites* is known since the Cambrian (Buatois et al. 2016).

Description: Cylindrical, winding, or meandering burrows with convex surfaces that possess some branches with short appendages. The infill material shares the same composition and sand size as the host sediment, with only slight variations in color when compared to the surrounding rock. Variation in both length and width is clear in the exposed burrows. The unbranched, curved, or bending burrows range from 2 mm to ~3 mm wide, with a definite mode around 2 mm, exposed lengths are up to 9 cm. The shorter, branched burrows range

from 1 mm to ~3 mm wide, with a definite mode around 2 mm, exposed lengths are up to 2.5 cm.

Remarks: The trace fossils from the Hickory Sandstone show that shallow water, near-shore marine environments—with high to moderate energy conditions—deposited the sediments of the sandstone. These sediments built up on intertidal sand flats and sand bars. Organisms, likely a worm, made all the burrows in soft sand before the consolidation of the sediments. The sediments were abundant in nutrients, supporting deposit feeders (Cornish, 1975a, 1975b; Seilacher, 1978; Ekdale et al., 1984). **The study specimen shows a close resemblance in morphology to *Planolites montanus* (Billings, 1862; Richter, 1937) (Figure 1).** *Planolites* is interpreted as a feeding trace of a mobile deposit feeder, predominantly worms (Pemberton & Frey 1982), or possibly the larva of insects (Buatois & Mángano 1993). The key differences between *Planolites montanus* and *Planolites beverleyensis* are their size and shape: *Planolites montanus* are smaller and more meandering, while *Planolites beverleyensis* is larger and straighter (Pemberton and Frey 1982). *Planolites* occur in most depositional environments (Pemberton and Frey 1982) and have a temporal range from the Ediacaran to Holocene (Häntzschel 1975). According to most paleontologists, standing water (or fully saturated sediments) is crucial for the existence of *Planolites*. This conclusion is supported by various studies (Gierlowski-Kordesch 1991; Pickerill 1992; Buatois and Mangano 1993; MacNaughton and Pickerill 1995; Metz 1996; Keighley and Pickerill 2003; Gillette et al. 2003; Melchor 2004).

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Locating and Digging my First Pocket **at the Energizer Bunny Site**

Mark Mann

To ring in digging season, I'm going to recount my recent experience locating, digging, and persisting to find my first pocket of crystals **at the Energizer Bunny site (Pike's Peak Region)**. Finding pockets, I'm learning, is not for the faint of heart. It takes a lot of knowledge, determination, a keen eye, persistence—oh, and a whole lot of luck.



Above: Selfie with CSMS President, Alexander Field. I'm incredibly excited at this point and I think he's down to just watch.

So how do you find a pocket of crystals? Looking for a quartz float is the first step. Milky quartz is a fine start, but less than ideal. The signs go all the way up to smoky quartz crystal shards. You're looking for any hint of quartz "floating" or moving its way down a hillside. It's a good tactic to start at the

bottom because: gravity. From there, it's all about having a sharp eye for the white stuff. Remember though, quartz is the most abundant mineral on the planet, so it's everywhere. It's a good starting point, and most crystal pockets are found starting with quartz. I'm only about 6 months into my crystal hunting career so I'm no expert, but in my experience, probably 99 times out of 100 quartz floats won't lead you directly to a pocket - it's just one sign of many to ignite your lucky streak.

Once you've zeroed in on some quality quartz float, it's time to pay attention to the actual shapes in the material and follow it closely. The closer the shapes are to a crystal (i.e. faces, angles, geometry, points) the better your odds are of locating a crystal pocket. That makes sense right? That being said, you've found a quartz float and the material is looking clear, smoky, and full of glassy faces. Now what do you do? This is where the luck comes in—and some serious persistence. One of my early guides, John McGrath, takes a very quick and efficient approach to locating the source of some good material. Take a pickaxe or elongated tool and begin prodding the soft ground for any sign of hard rock material. We aren't at the point where we're talking about pegmatite yet, but we'll get there. Once you feel your tool hit something hard anywhere from 3-12" below the surface, start to explore. Uncover the material, pull it from the dirt, examine it, and search for similar clues that you were looking for on the surface. Do you see any crystal-type shapes? Depending on how this material looks, you should either move on or stay where you're at. That's where the encyclopedic knowledge needs to come in. You'll need to know what the material is and use that as a guide for finding your next pocket.

Continued . . .

Let's say the material doesn't look good and isn't leading you to believe there are more crystal shapes in this area. What do you do now? You should move on. Don't spend too much time digging in the dirt if you're not finding promising material. This is a mantra I continually use myself, because it's a hard lesson to learn. You want to believe that the next 3 foot smoky is just one pick's throw away. And sometimes it is, but most of the time it isn't. Conserve your energy and move to the right, left, up the hill, or down depending on **how you read** the signs.

Now let's say the material is looking great and more closely whole crystals are coming out of the ground. What should you do now? You should stay put, slow down, and swap out your tool. In this moment, you want to move carefully, slowly and make sure that you don't end up throwing a pickaxe through your next amazing pocket of crystals. They're insanely delicate, and you'll be kicking yourself later if you end up breaking the next big 3 foot smoky. Slow down, grab a small hand tool, rake, or your hands (with some good gloves, of course) and start inspecting your hole with CSI-like precision. Go down, go left, go right, go up, and please remember to dig where you're kneeling or laying down. If you continue to find good material, you're on the scent and should stay, but if you explore all possible directions and don't end up finding anything, then you should probably move on.

So you've moved around in your hole, and you're still finding good material? Stay there, and keep digging until flat faces disappear and the material dries up. Remember to take it slow. Be patient. It'll be exciting to find your first (or 100th!) pocket, so you'll want to move quickly, but resist the urge to rush.

What are some other signs to look for? The



Above: A look at the beginning stages of digging out the Energizer Bunny pocket.

color of the soil is a good additional indicator that you're on the right track. Quartz crystals and other crystals like to hang out with some iron-rich soil for some reason and typically the soil will be more a tint of red where there are crystals. Now this is sort of like quartz float. Red soil is everywhere and 99 out of 100 times won't lead you to a pocket, but it more than likely will be present at your next pocket, so it's an indicator. Another indicator is funky vibes. Stay with me here. Not only will the soil change colors but if you've found a pocket, most of the time there will be some funky clay hanging out with your future crystal friends. It will come in all kinds of colors (e.g. red, yellow, purple). I've seen them all. More than likely, if your dirt is looking weird, puzzling, or funky then there's a party happening underground—and it's a party that you want to be at. Stay in the hole, and keep exploring.

Bugs are another good sign from what I've seen and learned. Larvae, ant colonies, and slumbering beetles, they're all hanging out in

a cavity with some moisture and a pocket in the ground is likely to have those same things. Please be kind to our slumbering beetle friends, and put them in a cozy place to go back to sleep. Also, trees like moisture too and finding tree roots is a great indicator that you're in a good area. Much like our slumbering beetle friends, please be kind to the tree roots. Prioritize the landscape for future generations, and the ecology that you get to visit. I am not perfect and have hacked a tree root or two in my day, but I'm still learning and growing and still learning to prioritize the environment over my own crystal pursuits.



Above: The **uncleaned** top wall of the pocket.

One **last** thing to leave you with is reclamation. It's unclear to me what the official rules are, but I think it's a good rule of thumb to reclaim or refill a hole when you're done digging. This could mean that you're coming back to a hole or pocket at a later date but be reasonable and know there will be all kinds of animal activity that could interact with your impact. If you plan to come back during the digging season, then I'd say you could leave it open, but if you aren't, take the big rocks you took out, drop them in

the hole, and fill it in with the dirt to make it look as if you were never there. We all came after other diggers and can only assume certain spots that weren't dug, so fill that hole and move on. Also, please don't disturb the actual trees.



Above: Uncleaned spread of the smoky quartz and feldspar crystals.



Above: All cleaned up! A lot of the material ended up being very gemmy and clear.

Most of our Pikes Peak area crystals have been in the ground for over a billion years, and we're lucky to get to see one and be the first human to lay eyes on their beauty.



John Emery
Editor

Thanks to our contributors. We encourage everyone to submit articles, photos, illustrations or observations. Share your experiences, your new finds, or simply your enjoyment of our last field trip. Handwrite it, type it, or email it. Format does not matter. All submissions are welcome. The deadline for items to be included in the next Pick & Pack is the **last day of the month.**

To submit an item:

For hardcopy photos or articles, mail to the address below or bring them to the General Meeting. All hardcopy photos remain the property of the submitter and will be returned. Electronic photos can be submitted at resolutions above 200 dpi in any format.

Feature articles can be in MS Word or Mac Pages, preferably not pdf. The newsletter is produced in Mac Pages.

e-mail the editor:
pickandpackeditor@gmail.com

Mail to: Pick & Pack Editor PO Box 2 Colorado Springs, CO 80901

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2024 Bulletin Editors Contest Results - CSMS

Steven Wade Veatch

3rd place, adult articles advanced

The Florissant Fossil Beds, Colorado: A Place of Change

Shane Riddle

8th place, adult articles

My Visit: The Ben E. Clement Museum

Steven Wade Veatch

2nd place, adult poetry

"Time in Florissant"

David ST John

3rd place, adult poetry

"Grandpa's rockhound Delight"

Steven Wade Veatch

2nd place, drawn features

"Stegosaurus - Colorado State Fossil"

John D. Emery

10th place, Large Bulletin

Pick & Pack



Thanks to our contributors, thank you for submitting to Pick & Pack

Field Trip Schedule

Subject to the Laws of Nature

15 Jun 24:	Smoky Hawk Mine - June 15th
22 Jun 24:	Rocky Mountain High - June 22nd
29-30 Jun 24:	Wyoming Fossil Digs
6 Jul 24:	Topaz Mountain Mine, Colorado
20 Jul 24:	Rocky Mountain High with Lake George Club
24 Aug 24:	Mt Antero
7 Sep 24:	CSMS Denver Show Meet-up
October:	Book Cliffs

Contact field trip planner Kyle Atkinson with questions:
atkinson.kyl@gmail.com 719-453-3653

2024 AFMS Bulletin Editors Contest Results

Adult Articles	Federation	Author	Article	Issue	Bulletin	Editor	Club Name	State
1	SCFMS	Kerry Cartier	Lessons from a Bolo Tie	March	Rock N Rose	Sarah Hawthorne & Julia Toombs	East Texas Gem & Mineral Society	TX
2	CFMS	Stephanie Leonard	The Case of the Missing ID	May	The Conglomerate	Suzanne Webb	Reno Gem & Mineral Society	NV
3	MWF	Nide Smith	Cool Corundum Part Two: Sapphire	June	The Strata Data	Michelle Yamanaka	The Three Rivers CMS	IN
4	CFMS	Lisa Batchelder-Hetrick	Earthquakes in Ojai: How We Map the Data	October	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
5	SCFMS	Julia Toombs	Do You Enjoy Writing?	January	Rock N Rose	Sarah Hawthorne & Julia Toombs	East Texas Gem & Mineral Society	TX
6	EFMLS	Diane Moxley	A Rock Wall to Remember	September	The Collecting Bag	Barbara Hadley	Richmond Gem & Mineral Society	VA
7	CFMS	Donald Perez	Desert False Bedrock	November	Grub Stake	Donald Perez	Hi Desert Gold Diggers, Inc.	CA
8	RMFMS	Shane Riddle	My Visit: The Ben E. Clement Museum	March	Pick & Pack	John D. Emery Jr	Colorado Springs Mineralogical Society	CO
9	RMFMS	Harlin Unruh	X-Ray Microtomography Solves Mystery	September	The Post Rock	Sara Murphy	McPherson Gem & Mineral Club	KS
10	SCFMS	Colleen Hayes	Glass	February	Rock N Rose	Sarah Hawthorne & Julia Toombs	East Texas Gem & Mineral Society	TX
HM	EFMLS	Pet Stith	If You Built It	October	The Collecting Bag	Barbara Hadley	Richmond Gem & Mineral Society	VA
HM	EFMLS	Bobbie Sandvig	I Know About Rock Love	May	The Collecting Bag	Barbara Hadley	Richmond Gem & Mineral Society	VA
HM	EFMLS	Saul Krotki	"Mister Mineral!" Thirty Years of Crawling Under Tables in Second-Hand Bookstores	December	The Bulletin of the NYMC	Diane Beckman	The New York Mineralogical Club	NY
HM	EFMLS	Amanda Lytle	I Finally Did My First Show Exhibit: This Is How It Went Down	August	Crack N' Cab	Lary Petry	Gem & Mineral Society of Syracuse	NY
HM	NFMS	Jim Cerezle	Giving an Old Rock Saw a Facelift	November	The CMS Tumbler	Keith Morgan	Cascade Mineralogical Society	WA
HM	NFMS	Jim Urbaniak	A Rock of the Month- An Ocean at the Top of the World	March	The Rockhound	Priscilla Hall-Ford	Oregon Agate & Mineral Society	OR
HM	RMFMS	Nancy Kimber	A Fish Tail, Part 1 - Good Karma!	May/June	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
Adult Articles Adv	Federation	Author	Article	Issue	Bulletin	Editor	Club Name	State
1	RMFMS	Les Presmyk	Arizona's Copper Minerals	December	The Rockhound Record	Joseph Philpott Jr.	Mineralogical Society of Arizona	AZ
2	RMFMS	Dennis Gertenbach	Why Does Hartsel Barite Turn Blue in the Sun?	July/August	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
3	RMFMS	Steven Wade Veatch	The Florissant Fossil Beds, Colorado: A Place of Change	April	Pick & Pack	John D. Emery	Colorado Springs Mineralogical Society	CO
4	SCFMS	Neal Immege	Identifying Other People's Find	February	Backbender's Gazette	Sigrid Stewart	Houston Gem & Mineral Society	TX
5	CFMS	David Springer	Hornitos Poppy Jasper	May	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
6	EFMLS	Vivien Gornitz	The Mystery of Libyan Desert Glass provide input about restrictive BLM land-use plan	March	The Bulletin of the NYMC	Diane Beckman	The New York Mineralogical Club	NY
7	RMFMS	Greg Jones	provide input about restrictive BLM land-use plan	September	Jade State News	Ilene Olson	Wyoming State Mineral & Gem Society	WY
8	MWF	Doug Moore	Wollastonite	September	Rockhound News	Donald Kelman	Heart of WI Gem & Mineral Society	WI
9	NFMS	Kat Koch	Is the Secret to Losing Weight to Move to the Canadian Tundra?	October	The CMS Tumbler	Keith Morgan	Cascade Mineralogical Society	WA
10	CFMS	D.W. Webb Varnum	The Human Race Is In Danger from Mother Earth	March	The Conglomerate	Suzanne Webb	Reno Gem & Mineral Society	NV
HM	CFMS	Jim Brace-Thompson	Better Wear that Name Badge!	June	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
Drawn Features	Federation	Artist	Drawn Feature	Issue	Bulletin	Editor	Club Name	State
1	SCFMS	Sarah Hawthorne	Desert Rose	September	Rock N Rose	Sarah Hawthorne/ Julia Toombs	East Texas Gem & Mineral Society	TX
2	RMFMS	Steven Wade Veatch	Stegosaurus- Colorado State Fossil	May	Pick & Pack	John D. Emery	Colorado Springs Mineralogical Society	CO
3	RMFMS	Charlotte Small	Fossil of the Month: Pikaia	November/ December	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
4	NFMS	Keith Morgan	If you had a fossil shell up	August	The CMS Tumbler	Keith Morgan	Cascade Mineralogical Society	WA
5	NFMS	Duane Flackus	Hard Luck Harry	November	The Clackamette Gem	Robert Dalton	Clackamette Mineral & Gem Corp.	OR

Wild Card-BEACs- Written Features	Federation	Author	Written Feature	Issue	Bulletin	Editor	Club Name	State
1	RMFMS	Linda Jaeger	Quick Tips for Editors	February	AFMS Newsletter	Linda Jaeger		
2	SCFMS	Susan Burch	2022, No it's 2023	January/February	South Central Federation of Mineral Societies Newsletter	Susan Burch		
3	RMFMS	Linda Jaeger	From Rocky Start to Heartwarming Gift!	June	AFMS Newsletter	Linda Jaeger		
4	RMFMS	Linda Jaeger	Quick Tips for Editors	November	RMF News	Linda Jaeger		
5	CFMS	Celia Churchill	Editor's Note	June	Rockhound Rambling	Celia Churchill		
Written Features	Federation	Author	Written Feature	Issue	Bulletin	Editor	Club Name	State
1	SCFMS	Becky Whisenant	The Other Thing	September	Rock N Rose	Sarah Hawthorne & Julia Toombs	East Texas Gem & Mineral Society	TX
2	RMFMS	Doran Adams	Calumet Mine Field Trip	September/October	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
3	MWF	Mick Brady	The Four Ways to Love a Rock	November	The Strata Data	Michele Yamanska	The Three Rivers Gem & Mineral Society	IN
4	EFMLS	RJ Harris	Butch Was There	September	Rock Buster News	Renee Kowalchik	Central PA Rock & Mineral Club	PA
5	SCFMS	Alan Walker	Hound & Rockhound	February	Rock N Rose	Sarah Hawthorne & Julia Toombs	East Texas Gem & Mineral Society	TX
6	CFMS	Erin Valenzuela	Anne of Geierstein	October	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
7	MWF	Susan Satchwill	Hematite & Hiding - a Day in the UP	June	The Strata Data	Michele Yamanska	The Three Rivers Gem & Mineral Society	IN
8	EFMLS	Annie Fitzgerald	Getting a (sic) Kick Out of Fossils	December	Crack 'N Cab	Larry Petry	Gem & Mineral Society of Syracuse	NY
9	RMFMS	Brian Walke	President's Message	November/December	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
10	SCFMS	Kerry Cartier	Gold In "The Kink" In Alaska	July	Rock N Rose	Sarah Hawthorne & Julia Toombs	East Texas Gem & Mineral Society	TX
HM	CFMS	Steve Rose & Steve Norman	Kids Corner: Nevada and California, the BIG Picture	May	The Conglomerate	Suzanne Webb	Reno Gem & Mineral Society	NV
HM	CFMS	Belinda Poore	Beginning Rockhounding at 63	November	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
HM	CFMS	Jennifer Russell	Shine Bright Like a Diamond	June	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
HM	EFMLS	Woody Thompson	Woody Thompson's Presentation on Great English Minerals (Past & Present) & the Munich Mineral Show	January/February	Burlington Gem & Mineral Club Newsletter	Alice Wack	Burlington Gem & Mineral Club	VT
HM	MWF	Marilyn Russell	Learned a Lot	August	The Strata Data	Michele Yamanska	The Three Rivers Gem & Mineral Society	IN
HM	NFMS	Richard Gunsolus	Field Trips	June	The Clackamette Gem	Robert Dalton	Clackamette Gem & Mineral Corp.	OR
HM	NFMS	Karli Cook	Red October II Field Trip	December	Hatrockhound Gazette	Judi Allison	Hatrockhound Gem & Mineral Society	OR
HM	NFMS	Roger Danneman	Field Trip Report for Biggs Junction	May	The CMS Tumbler	Keith Morgan	Cascade Mineralogical Society	WA
HM	RMFMS	Cameron Reichert	Valley of Fire State Park & Royston Turquoise	December	The Rockhound Record	Joseph Philippott Jr.	Mineralogical Society of Arizona	AZ
Jr Articles, under 12	Federation	Author	Written Feature	Issue	Bulletin	Editor	Club Name	State
1	CFMS	Henry Irie	"Out of this World"	November	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
2	CFMS	Colin Popiel	"Gem Hunting at Oceanview Mine"	November	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
3	RMFMS	Eian Link	"How to Make Your own Pottery Clay at Home (FROM DIRT)!"	November/December	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
4	RMFMS	Emilyn Bubb	"Combat Rock Field trip"	September/October	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
5	CFMS	Daniel Nishimura	"PLS Rockhounding at North Edwards Desert"	November	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
6	RMFMS	Axel Gray	"Double Header Mine Report"	July/August	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
Jr Articles, 12-17	Federation	Author	Written Feature	Issue	Bulletin	Editor	Club Name	State
1	RMFMS	Charlotte Small	History of Opabinia	May/June	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
2	RMFMS	Daniel Bonvillian	White River Formation	September/October	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
3	CFMS	Lucia Hetrick	Geological Features Found at the Ranch	August	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
4	RMFMS	William Elek	What We Like to Collect	November/December	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
5	CFMS	Elyssa Jones	Earning My Leadership Badge	March	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
6	CFMS	Rylee Jones	My Little Rock Library	January	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA

Adult Poetry	Federation	Author	Written Feature	Issue	Bulletin	Editor	Club Name	State
1	CFMS	Beth Walls	Beachcombers	December	Rockconteur	Beth Walls	Santa Lucia Rockhounds	CA
2	RMFMS	Steven Wade Vestch	Time in Florissant	April	Pick & Pack	John D. Emery	Colorado Springs Mineralogical Society	CO
3	RMFMS	David St. John	Grandpa's Rockhound Delight	December	Pick & Pack	John D. Emery	Colorado Springs Mineralogical Society	CO
Jr Poetry	Federation	Author	Written Feature	Issue	Bulletin	Editor	Club Name	State
1	CFMS	Skyla Zuniga	Teeth of the Sea: Megalodon	August	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
2	CFMS	Beecher Irie	Malachite at the Santa Barbara Natural History Museum: A Haiku	November	Rockhound Rambling	Celia Churchill	Ventura Gem & Mineral Society	CA
Special Publications	Federation	Author	Written Feature	Issue		Editor	Club Name	State
1	RMFMS	Caleb Smith	DGMG 2024 Calendar	2023		Beth Simmons	Denver Gem & Mineral Club	CO
2	NFMS	Kat Koch	Cascade Gem & Mineral Show Brochure	2023		Keith Morgan	Cascade Mineralogical Society	WA
3	RMFMS	Charlotte Small	Gray's Prehistoric World, Paleozoic Edition	2023		Dennis Gertenbach	Flatirons Mineral Club	CO
4	RMFMS	Will Rehm	NCAR Labs Geology	August		Dennis Gertenbach	Flatirons Mineral Club	CO
5	SCFMS	Nancy English	Epic Cleaning out Shop prior to Construction	August		Sigrid Stewart	Houston Gem & Mineral Club	TX
Small Bulletins	Federation			Issue	Bulletin	Editor	Club	State
1	MWF			April	The Strata Data	Michele Yamanaka	Three Rivers Gem & Mineral Society	IN
2	CFMS			June	Ore-Cutts	Tara Machin	Orcutt Mineral Society, Inc.	CA
3	EFMLS			April	The Collecting Bag	Barbara Hadley	Richmond Gem & Mineral Society	VA
4	RMFMS			November	The Ammonite	Deborah Vick	Western Dakota Gem & Mineral Society	SD
Large Bulletins	Federation			Issue	Bulletin	Editor	Club	State
1	SCFMS			Summer	The Hot Springs Bulletin	Raymond Lynch	Hot Springs Geology Club	AR
2	CFMS			23-Dec	Rockconteur	Beth Walls	Santa Lucia Rockhounds	CA
3	NFMS			23-Jun	The CMS Tumbler	Keith Morgan	Cascade MS	WA
4	RMFMS			July/August	Flatirons Facets	Dennis Gertenbach	Flatirons Mineral Club	CO
5	CFMS			23-Jun	Conglomerate	Suzanne Webb	Reno GMS	NV
6	RMFMS			23-Sep	Jade State News	Ilene Olson	Wyoming State GMS	WY
7	SCFMS			23-Jan	Rock N Rose	Sarah Hawthorne	East Texas GMS	TX
8	EFMLS			23-May	Burlington GMC Newsletter	Alice Wack	Burlington GMC	VT
9	CFMS			23-Nov	Grub Stake	Donald Perez	HI Desert Gold Diggers	CA
10	RMFMS			23-Mar	Pick & Pack	John Emery	Colorado Springs MS	CO
Jr Bulletins	Federation			Issue	Bulletin	Editor	Club	State
1	NFMS			November/December	Rockhound Jr.	Jim Urbaniak	Oregon Agate & Mineral Society	OR
New Editors	Federation			Issue	Bulletin	Editor	Club	State
1	EFMLS			June	Rock Buster News	Renee Kowalchik	Central PA Rock & Mineral Club	PA
2	RMFMS			December	The Rockhound Record	Joseph Philpott Jr	Mineralogical Society of Arizona	AZ
3	NFMS			March	The Clackamette Gem	Robert Dalton	Clackamette Mineral & Gem Corp.	OR



Pick & Pack
P.O. Box 2
Colorado Springs, CO 80901-0002



CSMS is an incorporated nonprofit organization with the following goals:

- To promote and disseminate knowledge of the earth sciences, especially as they relate to mineralogy, lapidary, and fossils.
- To encourage study, collection, and fashioning of minerals.
- To accomplish the same through social meetings, lectures, programs, displays, shows, and field trips.
- The Pick & Pack newsletter is published 10 times each year to assist and promote the above.

Joining the Colorado Springs Mineralogical Society (CSMS):

- Meetings are held the third (3rd) Thursday of each month, except January & August.
- 7:00 PM at Mt. Carmel Veterans Service Center; 530 Communication Circle, Colorado Springs, CO 80905
- Visitors are always welcome.
- Individuals—\$30, Family—\$40, Juniors—\$15, Corporate—\$100.
- Find the application at the web site: www.csms1936.com. If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Meeting or visit our web site.

Meetings: CSMS also offers Satellite Group meetings that allow more focused attention in specific areas of our members' interests. Our current Satellite Groups consist of the following: Crystal Study Group, Faceting Group, Fossil Group, Lapidary Group, and Pebble Pups/ Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

Membership Benefits: Yearly dues include 10 issues of the *PICK & PACK*, all field trips (additional fees may be required on some field trips, and members are responsible for all transportation to and from), participation in all Satellite Groups (some groups may request additional fees to help cover resource costs), a year of learning and enjoyment, plus a lifetime of memories.

Colorado Springs Mineralogical Society is a Member of the following organizations:

- American Federation of Mineralogical Societies (AFMS) www.amfed.org
- Rocky Mountain Federation of Mineralogical Societies (RMFMS) www.rmfmms.org