

CSMS General Meeting Thurs. November 21, 2013 7PM "Presentations by the Earth Science Scholars and Pebble Pups"

- Luke Sattler will present on tourmaline
- Zach Sepulveda will present on a fossil from the depths of the Cripple Creek Mines
- Blake Reher will give an update of the cool fossils of Florissant Fossil Beds
- Gavin Noller will present an amazing story on the Colorado Wyoming Diamond district
- Jack Shimon will do a very special presentation

Treats for November to be provided by the Faceting Group

FOSSIL GROUP FIELD TRIP TO FLORISSANT

By Joyce Price Pictures by Jerry Suchan and Jack Null

Members of the Fossil Study Group met at the Senior Center to carpool to the Florissant Fossil Beds National Monument. The day was cool but sunny and the drive up Ute Pass was beautiful—the aspens just starting to turn. After a short wait for one car which just couldn't bypass the Donut Mill in Woodland Park, we all gathered at the new museum.

The rangers are very friendly and helpful and gave our group a brief history of the trees and other fossils. We then went to watch a short video which is very informative and a "must see" before visiting the museum or hiking the trails.

Based on argon radiometric dating, the formation is late Eocene (approximately 34 million years old-about the same age as the formations at Badlands National Park) and is interpreted as lake environ-

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ment. The fossils were preserved due to interaction of volcanic ash from the nearby Thirtynine Mile Volcano Field (also called the Guffey Volcano Center) with diatoms in the lake, causing an algal bloom. As algae fell to the bottom, any plants or animals that had recently died were preserved by algal mats.

Leaves, fruits, seeds, cones and flowers have all been found at the site. Invertebrates include spiders, millipedes, insects and ostracods, as well as clams and snails. Insects include cockroaches, katydids, wasps, bees, ants and many, many more. Three birds, one a cuckoo, have been found. Also examples of rollers and shorebirds. Mammals are almost nonexistent. Only one specimen of a small opossum has

Continued pg 3

CSMS Calendar

November 2013

Sat., Nov 2—Lapidary, 10-2 p.m., Sharon Holte 217.5683.

Tue., Nov 5—Fossil Group, 7 p.m., Senior Center.

Thu., Nov 7—Board Meeting, 7 p.m., Senior Center.

Tue., Nov 12-Micromounts, 7 p.m., Senior Center. Dave Olsen, 719.495.8720

Thu., Nov 21—General Assembly, 7 p.m., Senior Center.

Pebble Pups & Juniors. 5:30 to 6:15 p.m., Steven Veatch, 719.748.5010

Thu., Nov 28—Crystal Group, No Meeting due to Thanksgiving, Kevin Witte, 719 638-7919 Faceting Group, No Meeting due to Thanksgiving, Paul Berry, 719.578.5466

Nov, Jewelry Group, By appointment. Call, Bill Arnson, 719.337.8070. 15610 Alta Plaza Cir., Peyton December 2013

Tue., Dec 3—Fossil Group, 7 p.m., Senior Center.

Thu., Dec 5—Board Meeting, 7 p.m., Senior Center.

Sat., Dec 7—Lapidary, 10-2 p.m., Sharon Holte 217.5683.

Tue., Dec 10-Micromounts, 7 p.m., Senior Center. Dave Olsen, 719.495.8720

Thu., Dec 19—General Assembly, 7 p.m., Senior Center.

Pebble Pups & Juniors. 5:30 to 6:15 p.m., Steven Veatch, 719.748.5010

Thu., Dec 24—Crystal Group, 7 p.m., No Meeting due to Christmas. Kevin Witte, 719 638-7919 Faceting Group, 7 p.m., No Meeting due to Christmas. Paul Berry, 719.578.5466

Dec, Jewelry Group, By appointment. Call, Bill Arnson, 719.337.8070. 15610 Alta Plaza Cir., Peyton

The Senior Center is located at 1514 North Hancock in Colorado Springs. For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, csms.us

Other Events of Interest to CSMS Members

Fri.-Sun., Nov. 1-3, Denver Area Mineral Dealers Public Show, Jefferson County Fairgrounds, 6th Ave. Frontage Rd. and Indiana St., Golden, CO. 10:00 - 5:00 Fri., 10:00-6:00 Sat., 11:00-4:00 Sun. Open to the public. Eighteen dealers, free admission, free parking.

Thurs., Nov. 7, Heritage Lecture Western Museum of Mining and Industry, American drilling team captain Jeff Hart will discuss the trials and joys of working to recover the 33 trapped Chilean miners in 2010! No charge, but RSVP to: <u>rsvp@wmmi.org</u> and see <u>http://www.wmmi.org/home</u> for more information.

Thurs., Nov. 14, 7:30 p.m., Friends of Mineralogy, Colorado Chapter, The Alkaline Pegmatite Minerals of the Golden Horn Batholith, Washington Pass, Northern Cascade Mountains, Washington; by Dr. Markus Raschke, University of Colorado, Physics and Chemistry Depts. "The unusual minerals at Washington Pass include zektzerite, sogdianite, brannockite, and a newly identified mineral that is the world's second known occurrence." Meeting in the VIP Room, Denver Museum of Nature and Science; all are welcome to attend.

Sat., Nov. 16, Littleton Gem and Mineral Club Annual Silent Auction, 12 noon - 5 p.m., at Columbine Hills Church, 9700 Old Coal Mine Avenue, Littleton. Seup at 11. Non-members are asked to not bring more than 12 specimens to sell. The club retains twenty (20) percent of the selling price. There will be minerals, gems, jewelry, fossils, books and much more available for bidding at the silent auction. For more information please email Ruth Zartman at ruthzart@yahoo.com or call (303) 973-0405 All are invited to attend.

Thurs., Nov. 21, 7:00 p.m., monthly meeting of the Colorado Scientific Society: **The Joys of Mapping Northwest Colorado Geology: Subtleties, Slides and Snakes**, by Peter Barkmann; plus three more Student Research Competition presentations, and awards for the best papers. All are welcome.

Fri.-Sun., Dec. 13-15, Flatirons Mineral Club Rock & Mineral Show, taking place at the Boulder County Fairgrounds, Main Exhibits Building, Hover & Nelson Roads, Longmont, CO. Hours are 10-6 Fri., 9-5 Sat., 10-5 Sun. Admission charge. For more info see <u>http://bcn.boulder.co.us/community/fmc/fmcshow.htm</u>

FOSSIL GROUP FIELD TRIP TO FLORISSANT continued

been found. There are no documented cases of reptiles or amphibians.

One of the birds mentioned above was found at a nearby private quarry by a former CSMS member, Colette Cherpin. That fossil was determined to be a new genus and species of cuckoo and is named in honor of Colette. Colette passed away a couple of years after her find in a head on automobile accident. This was a serious loss to the CSMS community.

Web articles about Colette and her bird fossil can be found at the following links.

www.nps.gov/search/index.htm?page=3&query=Ornithology www.nps.gov/search/index.htm?page=2&query=Ornithology www.nature.nps.gov/geology/paleontology/pub/.../nsp_paleo_vol4.pdf

The new museum, while not huge, is beautifully done. Young people especially will enjoy all the lids to lift and doors to open revealing specimens. I especially liked the dioramas. On the "legend" at the side, you chose what you wanted to see, pushed the button beside it, and a small light came on inside the case, showing exactly where it was in the diorama and what it looked like.

Fossil specimens are attractively mounted and labeled clearly. Drawers under each case contain more specimens. You can spend a lot of time looking through them all.

After the museum, we decided to take the trail to see the largest stump in the park, appropriately called The Big Stump. This stump, about 14 feet across, may have been more than 230 feet tall and 750 years old when it was buried by the lava. In 1904, the citizens of Florissant attempted to saw the Big Stumps in half so that it could be exhibited at the Chicago World's Fair. Fortunately, two attempts to saw the stump broke the saw blades before serious damage was done, and the plan was abandoned. Today, metal cables wrapped around the crumbling stumps protect them from falling apart. Look closely at the upper left part of the stump in the picture and you will see the saw blade, which is still embedded where it broke off. Score one for the stump, zero for man.

The stumps are a variety of sequoia trees. They were reduced to stumps by lava from the Guffey volcano, which leveled them all off to the ground. There are more stumps buried than have been excavated, and they are left that way to protect them from weathering and from man. Only the ones clos-

est to the museum have covers built over them. Perhaps someday, with more funds, they can protect more.



November 2013

FOSSIL GROUP FIELD TRIP TO FLORISSANT continued

The research center is only open when scientists or volunteers are working, but the ranger was kind enough to open it for our group. It is a large yurt building equipped with work tables, microscopes, storage, etc., everything needed to work on the specimens. It was quite warm inside, even on such a chilly day. I wonder what it's like in summertime.

Some of our group visited the Hornbeck Homestead, which is only a short distance from the museum. They found a sheltered place, out of the wind and in the sun, which made their picnic lunch quite enjoyable. Some of us ventured on down to Woodland Park for lunch.

All in all, it was a very interesting trip and an enjoyable day. If you decide to visit the Fossil Beds National Monument and the new museum, I know you will learn a lot about Colorado's fossil history and thoroughly enjoy your visit.



L-R, Oscar Price, Joyce Price, Jack Null, Karen Suchan, Amadel Fufran (Suchan's grandson), Richard Blackburn, a visitor from France



The Big Stump, with embedded saw blade

GEOLOGY AND PHYSIOGRAPHY OF ARKANSAS

Mike Nelson csrockboy@yahoo.com

Arkansas has land situated in two major physiographic regions, the Atlantic Plain and the Interior Highlands; each has several subdivisions (Fig. 1). The Atlantic Plain includes the Mississippi River Alluvial Plain (term of the Arkansas Geological Survey as I am used to calling it the Mississippi Embayment) that occupies the eastern onethird part of the state along the River. The Plain is a lowland without much relief and represents deposition in a basin extending from Cairo, Illinois, on the north (where the Ohio River joins the Mississippi) to the Delta. The oldest exposed rocks/sediments are Cretaceous marine while the youngest are being deposited by the River today. As far as I can tell, there is not much to collect in the generally featureless Plain, but there may be invertebrate fos-



Fig. 1. Sketch map showing physiographic regions of Arkansas. Map from Arkansas Geological Survey.



Fig. 2. Northeast Arkansas showing location of Crowley's Ridge. Map from Arkansas Geological Survey.

sils—and agates! Crowley's Ridge is about a 250--500 feet high, 200 mile long "ridge" sticking up in the alluvial plain and extending from southeastern Missouri into northeastern Arkansas (Fig. 2). The origin of the ridge seems uncertain (seismic? wind accumulation? erosional remnant?); however, the sediments are late Cenozoic in age. The surficial flora and fauna are more closely related to states east across the river than to the rest of Arkansas. At any rate, the gravel pits along the ridge produce agates known as Crowley's Ridge Agates, a somewhat bland colored (in many/most cases) fortification agate (Fig. 3). They occur as nodules, many are fist-size, in mostly

tan to cream to brown colors. The source of the agates is unknown but they must come from Paleozoic rocks to the north and were deposited by the ancestral Mississippi River. The Cambrian Potosi Formation cropping out in Missouri seems a possi-



I also wish to point out that some dealers and agate sellers on the internet dye the agates various colors and term them "Fairburn-like" or "Lake Superior-like". Beware of bright pink Crowley's Ridge Agates!

The most interesting aspect of the Mississippi Embayment is in the subsurface; a feature termed the Reelfoot Rift or Reelfoot Failed Rift. About 500 Ma. (Cambrian), or perhaps earlier, the bedrock in the continent began to rift apart, much like the rifting geologists see today in the Red Sea in the Middle East. At the north end, near Cairo, Illinois, the rift takes a dog leg to the east where the basin is termed the Rough Creek Graben. Both features are bounded by lateral faults. Had the rifting continued, then two (or more) new continental plates would have been created and Arkansas would be a "foreign country"! In fact an acquaintance of mine from near Toad Suck, Arkansas, believes they reside in a different country! However, for some reason the rifting stopped after the center had downdropped, and the basin begin filling with perhaps a mile or more of marine clastic and limestone rocks. Beginning in the late Paleozoic and continuing into the Cretaceous a series of igneous rocks were in-



Fig. 3. Crowley's Ridge Agate. Photo lifted from EBAY.



Fig. 4. Exposure of lignite in the Tertiary Wilcox Formation. Photo from Arkansas Geological Survey.

truded into the area, probably along the boundary faults. By the end of the Cretaceous, and lasting through the Eocene, the rifting was reactivated and the Mississippi Embayment formed and received sediments, some marine, throughout the remainder of the Tertiary. By the Pleistocene, glacial meltwater flooded the area depositing sands and gravels in a braided stream complex. It was not until the Holocene (last 10 k years) that the modern meander system of the River formed. (above history from Crone and Schweig, 1994).

Today the Reelfoot Rift Zone is being laterally compressed (the opposite of rifting) in an east-west direction and reactivating the old faults with the result being earthquakes! The New Madrid Seismic Zone is the most active tectonic zone east of the Rocky Mountains and is responsible for the 1811-12 earthquakes (remember the story about the Mississippi River running backward) that literally were felt across the eastern U.S. and perhaps the strongest in modern history. In addition, a more recent earthquake with a magnitude 7.7 rattled the country in May 2011 (Anonymous, 2011).

West of the Mississippi River Alluvial Plain is the West Gulf Coastal Plain, also part of the Atlantic Coastal Plain Physiographic Region (Fig. 1). Most of the Plain outcrops in Arkansas are poorly consolidated, flat-lying, offlapping rocks of Cretaceous, Tertiary and Quaternary age. Cretaceous rocks are mostly shallow marine and represent poorly consolidated sediments of the proto Gulf of Mexico. The Tertiary rocks are alluvial, flood plain, swamp, and shallow water marine. Lignitic coal beds are common (Fig. 4). Minerals present include gypsum, chalk, marl, barite, celestite, greensand, and ilmenite; however, collectable outcrops are tough to locate (Howard, 2007 revised). Perhaps the most interesting items noted from the Cretaceous rocks are a few scattered dinosaur bones and several thousand dinosaur tracks.

The Ozark Plateau Physiographic Province, part of the Interior Highlands, covers the northern part of Arkansas, north of the Arkansas River (Fig. 1); however, the province is more widespread in Missouri and also extends into northeastern Oklahoma and southeastern



Fig. 5. Sketch map showing location of the Ozark Province and its subdivisions. Map from Wikipedia.



Fig. 6. Monadnocks, curving ridges of resistant rocks that structurally are anticlines or synclines, in the Arkansas River Valley. Photo from Google Earth.

Kansas. The St. Francis Mountains (exposures of Precambrian igneous and volcanic rocks) in the Missouri section are the tectonic center of this domal uplift and rocks dip gently away from the core

(generally to the south in Arkansas). Tectonically, the Ozarks are an intracratonic uplift that seemed to fluctuate above and below sea level throughout the Paleozoic. Geologists are uncertain as to the cause of this uplift as the Ozarks are not close to the edge of a tectonic plate (Brown, 2004). Generally, Ordovician through Mississippian rocks are shallow water limestones and dolomites (the Precambrian and Cambrian rocks are in the subsurface) while Pennsylvanian rocks are sandstones and shales.

Although most refer to the Ozarks as "mountains", the relief is caused, not by uplift, but by streams cutting downward through the plateau (Fig. 5). The Salem Plateau is the lowest part of the Ozarks (elevation ~1500 feet) and Ordovician carbonates predominant. The Springfield Plateau, a few hundred feet higher than the Salem (~1800 feet) is held up by Mississippian cherty limestones; karst topography and caves are common. The most rugged part of the Ozarks is an area known as the Boston Mountains (~2600 feet) where Pennsylvanian clastics, shales and sandstones, form the surface (McFarland, 2004).



Fig. 7. Folded Paleozoic rocks in the Ouachita province. Gently dipping rocks of the Coastal Plain (southern part of photo) lap onto the folded rocks. Photo from Google Earth.

The Ouachita Physiographic Region (Fig. 1) has two distinct subdivisions: 1) the Arkansas River Valley running east-west across the state; and 2) the Ouachita Mountains to the south.

The Arkansas River Valley is an interesting area since it provides an outlet to the Mississippi River for the Arkansas River, a stream of 1469 miles of length that starts in the high mountains of Colorado. The river has meandered across the central valley leaving behind a wide flood plain deposited on top of folded, Ouachita-style rocks--Pennsylvanian sandstones and shales (originally deposited in deltas and near shore marine environments). The really interesting landforms in the valley are the numerous synclines and anticlines that erode as positive features and project above the floodplain (Fig. 6; monadnocks) (Foti, 2008). In fact, I once visited the summit of Petit Jean Mountain in the Valley at an elevation of 2460 feet, not much lower than Mount Magazine, the highest point in Arkansas at 2753 feet, and also situated in the Valley.

South of the Arkansas River Valley are the Ouachita Mountains, an area of folded ridges and valleys (Fig. 1). Clastic Paleozoic rocks predominant, as opposed to limey rocks in the Ozark Mountains (deposition in a shallow marine environment the continental shelf). During most of the Paleozoic, in what is now the Ouachitas, a deep offshore abyssal plain, perhaps more than 3000 feet below sea level, was to be found (Arkansas Geological Survey, 2012). The Ouachitas are actually related to the Appalachian Mountains, in fact a continuation of these mountains separated on the surface by the Mississippi River Embayment, but very noticeable in the subsurface.

So, these folded mountains have an interesting geological history--with deposition in a deepwater basin during the Ordovician and Devonian but then a wild change in the Mississippian and Pennsylva-

nian. During this later Paleozoic "action" what is now South America collided with Laurentia (the geological name for what is now the North American continent). The rocks and sediments in the marine basin were thrust up on the continent at this convergent plate boundary. This collision, known as the Ouachita Orogeny, compressed and folded the rocks as they were thrust northward. The structures are easily seen in Fig. 7. Perhaps as much as 50,000 feet of Paleozoic rocks, much of it black shale, quartzose sandstone, or bedded chert rocks are present. The rocks and structures are quite complex (see J. Calvert, 2007 at: http://mysite.du.edu/~jcalvert/geol/ouach.htm for additional history). Out here in Colorado geologists believe the formation of the Ancestral Rocky Mountains is related to this collisional event.

If I have thrown out too much geological jargon, I apologize. Next month I hope to write about Arkansas minerals since many CSMS club members have visited the pay-to-dig quartz sites. Sometimes my time just "slip slides away" as I write this monthly column, a monthly column for the RMFMS Newsletter, occasional musings for two out-of-state club newsletters, and a couple of articles per week on my blog. Beginning December another column (as Chair of the Conservation & Legislation Committee) will run monthly in the AFMS Newsletter. Shorter offerings are due as Chair of the RMFMS Kansas Public Lands Committee, Colorado Public lands Committee, and International Relations Committee. But, Life is Good.

For a review of geological time and the time scale see: <u>http://vulcan.wr.usgs.gov/Glossary/geo_time_scale.html</u>

REFERENCES CITED

Arkansas Geological Survey. 2012, General Geology: <u>http://www.geology.ar.gov/geology/general_geology.htm</u>

Anonymous, 2011, Poster of the New Madrid Earthquake Scenario of 16 May 2011 - Magnitude 7.7: www.earthquake.usgs.gov/earthquakes/eqarchives/poster/2011/20110516.php

Brown, S. R., 2004, Process and Timing of Uplift in the Ozark Plateau, Missouri: Geological Society of America Abstracts with Programs, Vol. 36, No. 5.

Crone, A.J., and Schweig, E.S., compilers, 1994, Fault number 1023, Reelfoot Scarp and New Madrid Seismic Zone, *in* Quaternary Fault and Fold Database of the United States: <u>http://earthquakes.usgs.gov/regional/qfaults</u>

Howard, J. M., 1987, with revision 2007, Mineral Species of Arkansas, a Digest: Arkansas Geological Survey Bulletin 123.

McFarland, J. D., 2004, Stratigraphic Summary of Arkansas: Arkansas Geological Commission, Information Circular 36.

PEBBLE PUPS CORNER



Pebble Pups in the News

The following pebble pups/Earth Science Scholars are co-authors on a paper that is an update on what is new at the Cripple Creek and Victor Gold Mining District that will be presented at the New Mexico School of

Mines and published by New Mexico Geology:

Zach S (11th grade) Jenna S (7th grade) Luke S (10th grade) Blake R (7th grade Teddy Reeves (Canadian distance student) Caleb B.(10 grade) Hunter B.(8th grade)



Zach, one of our teen pebble pups or Earth science scholars, gave a lecture to the Western Interior Paleontological Society at the Denver

Museum of Nature and Science on Oct 18. He is in 11th grade. His topic was fossilized wood found in the depths of the Cripple Creek Volcanic complex. He will be the presenting author on this paper at the Geological Society of America later this month. Use the link below to view the paper.

https://gsa.confex.com/gsa/2013AM/finalprogram/abstract_228610.htm

Pebble Pups Receive Awards from AFMS for Articles Published in the Pick & Pack



Junior Poetry: 1st—Jack Shimon (7), The Waldo Canyon Fire



Junior Article (12-17): 2nd—Gavin Noller (12), A Ute Arrow Straightener is Made of Jurassic Dinosaur Bone.



Junior Article (12-17): 10th— Blake Reher (14), Quick Notes on Brachiopods



Drawn Features: 3rd—Zachary Sepulveda, Smilodon.

Also winning an award but not pictured Drawn Features: 5th—Kurt Lahmers, An Ode to a Rock



Adult Poetry: 3rd—Steven Wade Veatch, Fossils from the Ancient Lake

Pebble Pups Receive Plaques for Presentations made at the Denver Show.

Plaques hand made by Roger Pittman.



Zachary Sepulveda, "Fossils from the Depths of the Cripple Creek Volcanic Complex



Blake Reher, "An Update on the Florissant Fossil Beds National Monument



Jenna Salvet, "Introduction to Garnets"

Not pictured but also winning a plaque: Luke Sattler, "The World of Tourmaline"

2013 CSMS Officers

Mark Lemesany, President Jean Miller, Vice President **Renee Swanson, Secretary** Ann Proctor, Treasurer Ellie Rosenberg, Editor

- Susan Freeman, Membership Secretary
- Sharon Holte, Member-at-Large Frank Rosenberg, Member-at-Large

Roger Pittman, Past President

2013 CSMS Chair Persons

Kim & Bodie Packham, Annual Show Chairperson Ron Yamiolkoski, Field Trip Director Ron Yamiolkoski, Science Fair Chair Frank & Ellie Rosenberg, Librarians **Camera Club Chair is Vacant** Georgia Woodworth, Social Committee Chair Ann Proctor, Store Keeper Gary del Valle, Webmaster

Sub-Group Responsibilities for Refreshments for General Assembly Meetings		
Feb.	Mar.	Apr.
Crystal	Faceting	Fossil
May	June	July
Jewelry	Lapidary	Micromount
Aug.	Sept.	Oct.
Picnic	Board	Crystal
Nov.	Dec.	
Faceting	Christmas Party	

SECRETARY'S SPOT

MINUTES OF COLORADO SPRINGS **MINERALOGICAL SOCIETY GENERAL** by Renee Swanson MEETING OCTOBER 17, 2013

Called to order by Mark Lemesany at 7PM with the Pledge of Allegiance.

Guest speaker Richard Cook, a teacher at the Air Force Academy was introduced. His specialty is theoretical Physics but his hobby is photography. His talk was on photographing mineral specimens under magnification. New software programs and devices have made it possible to overcome the inherent problems of limited depth of field and makes it possible to have the entire mineral specimen in focus. The software uses a process called "focus stacking". It requires a system that takes multiple pictures varying the distance from the object slightly. Software then puts all the images together in such a way that only the focused section from each image is used to form the composite image. This results in spectacular images of small mineral specimens.

Richard Cook also worked with Whitey Hagadorn and Kay and Jack Thompson to move the Willet Raney Willis collection of Micromounts from the Air Force Academy to the Denver Museum of Nature and Science.

Minutes were approved for the Sep 19 meeting. Volunteers are needed for Pebble Pups. Sharon presented awards from the AFMS. Visitors, guests and new members were introduced. There was a break for "goodies"

Prospectors show begins new season Oct 27. Kevin Witte brought a very large amazonite crystal he found recently.

Door prize drawing held. Adjourned 8:30. Respectfully submitted, Renee Swanson

Novemober 2013



Our Staff... Ellie Rosenberg—Editor

We encourage everyone to submit articles, photos, illustrations or observations. Share your experiences, your new finds, or simply your experience at our last field trip.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed. The DEADLINE for items to be included in the next Pick & Pack, is the **21st 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 should be submitted at resolutions above 200 dpi in TIF, BMP, JPG, or PIC format. Articles are preferred in word. Editors will correct font

E-Mail to: csmseditor@hotmail.com Mail to: Pick & Pack Editor PO Box 2 Colorado Springs, CO 80901

The PICK&PACK is published ten (10) times per year;(no issues in January or August). Unless otherwise marked, materials from this publication may be reprinted. Please give credit to the author and CSMS PICK&PACK. Pikes Peak Pebble Pups and Earth Science Scholars Publish First Poetry Chapbook

Classifieds



The Colorado Springs Mineralogical Society and the Lake George Gem and Mineral Club both host a junior program. The first volume of their collected poems about Earth science has been published and may be purchased for \$4.00. Shipping and handling is \$1.00. These chapbooks are limited in number and if you plan on buying one you should do it soon. Each book sold will provide each club with \$4. These will be for sale at the Denver Gem and Mineral Show in September. A second volume is being planned now and will be available later this year. To order, please send \$5 to:

Steven Veatch 1823 South Mountain Estates Road Florissant, CO 80816

In the memo section of the check put the club you belong to so that the club will receive the \$4. Make your check payable to: Veatch GeoScience, LLC. Be sure and act quickly as these books will soon be gone. This also helps the two clubs support the work of the Pebble Pups and Earth Science Scholars. Each month Veatch GeoScience, LLC. will issue a check to each club for the sales of the chapbooks.

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CSMS

T-Shirts, Badges, and Pins are available for sale. If you celebrated a CSMS anniversary in 2011 or 2012, your year pin award See Storekeeper, Ann Proctor



November 2013

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Postage Here



PICK&PACK P.O. Box 2 COLORADO SPRINGS, CO 80901-0002



Time Value Do Not Delay

CSMS is an incorporated nonprofit organization with these 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 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 p.m.** at the Colorado Springs Senior Center, 1514 North Hancock Ave., Colorado Springs, CO. <u>Visitors are always welcome</u>.

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, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

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), free admission to the *Western Museum of Mining & Industry*, a year of learning and enjoyment, plus a lifetime of memories.

Individuals—\$30, Family—\$40, Juniors—\$15, Corporate—\$100, *****Application is on the web site.

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: www.csms.us.

CSMS is a Member of: the following:

 American Federation of Mineralogical Societies (AFMS)
 www.amfed.org

 Rocky Mountain Federation of Mineralogical Societies (RMFMS)
 www.rmfms.org