PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs Mineralogical Society
Founded in 1936
Lazard Cahn
Honorary President
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CSMS General Meeting

Thursday, February 16, 7:00 PM

This month's speaker is Ernie Hanlon,

2017 President of CSMS

Topic: Collecting in Colorado

Refreshments provided by the Crystal Group

Reminder: There will be an organizational meeting for the June show at 6PM on Feb. 16 prior to the General Assembly

****In case of inclement weather, please call the Senior Center at 719 955-3400 to make sure it's open****

Inside this Issue:

Ernie Hanlon Biography

Our speaker for February is our current President Ernie Hanlon. He will be bringing a Wichita Case of self-collected Smoky Quartz to the meeting. Originally from Ohio, Ernie started collecting fossils at age 10 and continued with minerals and projectile points at age 13. In 1974, Ernie's Colorado collecting career began when he found a smoky quartz while hiking on Mount Arthur. Since then he has specialized in self-collected Colorado Minerals in cabinet, miniature, and thumbnail sizes. He has collected Rhodochrosite (worldwide and Colorado), tektites, minerals containing copper, Amazonite (worldwide), and other Pikes Peak Batholith minerals. Ernie has also collected Echinoderm, Arthropod, Invertebrate, Vertebrate, and Fish fossils as well as replica skulls of homonids. He has concentrated his collecting efforts in Colorado in the Lake George, Harris Park, and Mt. Antero locales.

Ernie served in the US Air Force for 8 years and 9 months. He graduated from UCCS with a BS in Chemistry. He belongs to several rock and mineral related organizations: PPAL, DGMG, LGMC, ALAA, as well as CSMS. He has served with CSMS as Field Trip Chairman for 10 years, Vice President for 2 years, Show Chairman in 1987, and President from 1988 through 1989. Ernie married Marilynn Everett in 1986, retired from the Post Office in 2001, and has visited 117 countries.

CSMS Calendar

February & March 2017

Thu., Feb 2 & Mar 2—Board Meeting, 7 p.m., Senior Center.
Tue., Feb 7 & Mar 7—Fossil Group, 7 p.m., Senior Center. Jerry Suchan 303 648-3410
Thu., Feb 9 & Mar 9—Faceting Group, 7 p.m., Senior Center. Paul Berry, 719 578-5466
Tue., Feb 14 & Mar 14—Micromounts, 7 p.m., Senior Center. Dave Olsen, 719 495-8720
Thu., Feb 16 & Mar 16—Pebble Pups & Juniors, 5:30- 6:15 p.m., Sr Ctr. Steven Veatch, 719 748-5010
Thu., Feb.16 & Mar 16—General Assembly, 7 p.m., Senior Center
Thu., Feb 23 & Mar 23—Crystal Group, 7 p.m., Senior Center. Kevin Witte, 719 638-7919

Appointment Only—Jewelry Group, Bill Arnson, 719 337-8070
Appointment Only—Lapidary Group, Sharon Holte, 719 217-5683

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, csms1936.com

Upcoming Events of Interest to CSMS Members

Submitted by Pete Modreski

Thurs., Feb. 2, 7:00 p.m., **The end of the Laramide Orogeny as we know it: The switch from porphyry copper to Au/Ag veins,** by William A. Rehrig, exploration geologist. Friends of the Colorado School of Mines Geology Museum's "First Thursday" lecture series on the CSM campus in the Ben H. Parker Student Center, Ballroom E, Maple Street, Golden. Socializing begins at 6:30 PM and the lecture will start at 7:00. Admission is free and all are welcome.

Fri.-Sat.-Sun., Feb. 24-26, Gem and Mineral Show, sponsored by the **Denver Gem and Mineral Guild**; Jefferson County Fairgrounds, 10-6 Fri. & Sat., 10-5 Sun.; free admission.

Sat.-Sun., March 4-5, Journey to the Jurassic – Exploring the Morrison Formation, WIPS (Western Interior Paleontological Society) 10th Founders Symposium. Green Center, Colorado School of Mines campus, Golden.

Fri.-Sat.-Sun., Mar. 31-Apr. 2, Fort Collins Gem & Mineral Show, sponsored by the Fort Collins Rockhounds Club, at the McKee 4-H Building, Larimer County Fairgrounds/The Ranch, I-25 exit 259. 4-8 p.m. Fri., 9-6 Sat., 10-5 Sun.

Fri.-Sat.-Sun., Apr. 14-17, Colorado Mineral and Fossil Spring Show, Crowne Plaza Hotel - Airport, 15500 E. 40th Ave. Denver, CO. See http://www.rockygems.com/colorado-mineral--fossil-spring-show-2017.html .

Sat., May 13, Friends of Mineralogy, Colorado Chapter, Silent Auction. Clements Community Center, 1580 Yarrow St., Lakewood CO, 12:00-4:00 (setup begins at 10:30 a.m., auction begins at 12:00, verbal auction 1:00, all tables will close by 3:00 p.m., checkout follows).

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COLLECTING INVERTEBRATE FOSSILS ON PUBLIC LANDS

Mike Nelson csrockguy@yahoo.com

On March 30, 2009, the Paleontological Resources Preservation Act (PRPA) became law on lands managed by various agencies of the federal government. The law had been through numerous drafts before approval by the US Congress and subsequent signing by President Obama. Although in 1999 the Senate Interior Appropriations Subcommittee asked federal agencies to prepare a report on fossil resource management, most rockhounds, and many professional paleontologists, believed that any new regulations would be written to protect vertebrate fossils (in my opinion). However, unbeknownst to most amateur fossil collectors, the United States Forest Service (USFS) published (May 23, 2013) draft regulations concerning the collection of invertebrate fossils and plant remains on land managed by the Agency. The comment period was 60 days and the Agency received few legitimate (non-form letters) concerns. Candidly, the proposal caught most rockhounds "off guard" and it was tough for rock and mineral clubs to organize informative responses. In my opinion, rockhounds lost many, many collecting privileges associated with invertebrate fossils as the proposed rules are now codified as 80 FR 21588. However, in defense of the USFS, the Agency was simply interpreting tenets of the PRPA, and that is the magic word, at least for me---interpretation.

In December 2016, proposed regulations for lands managed by the Department of Interior (Bureau of Land Management [BLM]; National Park Service [NPS]; Fish and Wildlife Service [FWS]; Bureau of Reclamation [BR]) were published in the Federal Register and became available for comments (received no later than February 6, 2017). The proposed rule [of Interior] would address the management, collection, and curation of paleontological resources from federal lands using scientific principles and expertise, including collection in accordance with permits; curation in an approved repository; and maintenance of confidentiality of specific locality data.

Most of the proposed regulations (formally known as A Proposed Rule by the Land Management Bureau and the Fish and Wildlife Service on 12/07/2016), but specifically subparts A through H, applies to all four bureaus---BLM, FWS, BR, NPS. Parts A through H are also very similar, perhaps mostly identical, to current USFS regulations (80 FR 21588). However, Part I of the proposed rules notes some differences between Interior (BLM and BR) and the USFS regulations regarding actual field collecting of common fossil plants and invertebrates. I should also note that PRPA does not allow casual collecting in areas administered by NPS or FWS.

So, what are some of the proposed items in Interior's new rules and regulations---hereafter known as the Rule? I will only hit on a few sections as the proposed Rule, as published in the Federal Register, is tens of pages long.

The Rule does not impose additional requirements regarding fossil collecting activities on permitted lands associated with general mining or mineral laws. It appears that if you have a permitted mining claim the fossil plants and invertebrates are fair game for any collecting (§ 49.15 …states that the proposed rule does not impose additional requirements on activities permitted under the general mining or mineral laws). Does this mean that if you are mining sedimentary rocks for minerals (such as barite or uranium) that any and all invertebrates may be collected? I don't know; however, that seems to be a reasonable assumption to me. But remember, my interpretation of various regulations and codifications found in the Federal Register may be subject to suspect. I do know, however, that a mining claim will not be approved by an Agency simply to allow a person/company to collect fossils. Any approved mining claim must include some sort of a commodity and fossils are not such.

The mining claim section of the Rule is an interesting one. Around this part of the country one permitted mining claim would create more surface disturbance, and could destroy more fossils, than all the Colorado rockhounds added together. BLM and USFS manage multi-purpose lands; however, some activities are much higher on the pecking order than rockhounding.

Fossils found in an archaeological context are archaeological resources, and are not considered paleontological resources. It is always best to not disturb archaeological resources.

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Fri.-Sat.-Sun., June 2-4, Pikes Peak Gem & Mineral Show, sponsored by the Colorado Springs Mineralogical Society. At Mortgage Solutions Financial Expo Center, 3650 N. Nevada Ave., Colorado Springs.

Fri.–Mon., July 21-24, Gold and Silver Deposits in Colorado, a symposium cosponsored by the Friends of the Colorado School of Mines Geology Museum and DREGS (Denver Region Exploration Geologists Society). "The event will feature two days of talks (July 22 - 23) and two days of field trips (July 21 and 24) to historic Colorado gold and silver mining areas."

UPCOMING SCIENCE FAIRS – Looking for Judges. Judges (and other types of volunteers too) are being sought for several district, regional, and state science fairs:

Community Resources, Inc., can use more judges at the Denver Public Schools District Science Fair on the DU campus on **Saturday, January 21st**. 8 a.m. to noon. To volunteer, you may sign up online at http://www.signupgenius.com/go/8050f4eada628a13-community or, email or call Sue Edwards, Executive Director, Community Resources Inc., 720-424-6523, sue_edwards@dpsk12.org .

The 2017 Longs Peak Science and Engineering Fair will be on **Tuesday, February 14**, at the Island Grove Event Center, 425 N. 15th Avenue, Greeley (shuttle service will be available from UNC). "We are anticipating higher numbers of grade 5-12 students than we've ever had before. Over 400 student researchers from Weld, Larimer, & Jackson County will compete for a chance to move on to state-level competition .The students will present their creative project ideas! Please share this message with anyone who might have an interest in helping with the event, check your schedules and ask for time off that day from your classes or work so that you can lend your expertise to judging and/or project inspections that day. Qualifications: Interest in youth STEM education is a must; a degree in a STEM field is NOT needed or required. Volunteers needed (training provided day of fair) include Project Board Inspectors, 7:15am – 9:00am; Morning Judges, 8:00am – 12:30pm; Afternoon Judges, 12:15pm – 5:00pm; All-Day Judges, 8:00am – 5:00pm. Volunteers may register at www.lpsef.org .

The 2017 Denver Metro Regional Science & Engineering Fair will take place on the CU-Denver campus on **Friday, February 17**. "We are always looking for mentors, volunteers, and judges." To register as a judge, see http://denversciencefair.com/ . They ALSO need volunteers to help in advance on their Scientific Review Committee, as well as for Display and Safety, "Wayfinders", and photographers—all this is on their web page.

The 2017 Colorado State Science & Engineering Fair "will be held on **Thursday, April 6** so mark your calendars now! We need you! Grand Awards Judging is an all-day event and judges need to be in attendance at the fair from 10 a.m. - 5:30 p.m." To sign up as a Grand Award Judge (that's the name for judges for the main competition) register online at http://www.csef.colostate.edu/Judges.htm . Volunteers are also needed for numerous categories of help in addition to judging; see their website for this too.

Christmas 2016 Pot Luck and Silent Auction








Christmas Pot Luck, Silent Auction , and Installation Banquet photos by Frank Rosenberg

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An authorized federal officer at BLM or USFS (the person in charge) may decide that specific rocks/minerals, such as coal, chalk beds, diatomites, etc. are not subject to PRPA rules as paleontological resources. However, there are a myriad of other federal regulations that may protect them.

The Department of Interior has specific Agency regulations concerning the collection of petrified wood on their managed lands. Petrified wood is managed as a paleontological resource when on or from lands administered by NPS, Reclamation, and FWS. On lands administered by BLM, petrified wood (defined by the Petrified Wood Act of 1962, Pub. L. 87-713, 76 Stat. 652, Sept. 28, 1962 as agatized, opalized, petrified, or silicified wood, or any material formed by the replacement of wood by silica or other matter, and identified as a mineral material under the Materials Act of 1947) is subject to commercial sale at 43 CFR part 3600 and free use regulations at 43 CFR part 3622. Therefore, on BLM lands, petrified wood may be managed as a paleontological resource, but the savings provisions in PRPA (16 U.S.C. 470aaa-10) prevent the imposition of additional restrictions on the sale or free use of petrified wood. When it is not subject to sale or free use, petrified wood on BLM-administered lands may be managed as a paleontological resource and/or under the authority of FLPMA. My old and used mind fails to understand this latter statement! Why would not all petrified wood collected on BLM-managed land be free use?

PRPA rules do not apply to “Indian lands.” However, lands managed by Native Americans always have collecting rules so avoid trespassing.

A federal authorized officer may restrict access or close a collecting area at any time. Therefore, fossil collecting on federal lands will now essentially involve a visit or call to an agency office.

Microfossils, such as foraminifera and radiolarians, are paleontological resources and are subject to collecting rules---except if you are drilling a permitted energy well. The drilling bit may then grind up as many microfossils as the driller pleases. Yes, that last sentence was cynical.

Most individual rockhound collecting of invertebrate and plant fossils (excluding petrified wood) falls under the definition of casual collecting; therefore, such individuals may collect on BLM lands that are not restricted or closed--lands such as BLM-administered national monuments would be closed. The Rule notes casual collectors may collect common invertebrate and common plant paleontological resources…casually. Common invertebrate and common plant paleontological resources are invertebrate or plant fossils that have been established by the bureaus, based on available scientific information and current professional standards, as having ordinary occurrence and wide-spread distribution. But, and there are many “buts” in the Rule, not all invertebrate or plant paleontological resources are common. When in doubt, collectors should err on the side of caution and collect only the resources that they know are common. In other words, pay a visit to an Agency to find out what fossils an officer has decided are “common.”

So, what is a casual collector as defined by the Rule? Casual collecting means the collecting without a permit of a reasonable amount of common invertebrate or plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools, resulting in only negligible disturbance to the Earth's surface or paleontological or other resources. Although this seems a restrictive definition, it is much better than the USFS definition: causal collecting is generally happenstance without intentional planning or preparation…, the view of casual collecting as an activity that generally occurs by chance without planning or preparation. The “good thing” about the Rule and the USFS regulations is that they clarify the allowance of collecting certain fossils from their managed lands.

But here are additional “buts” of the Rule. The casual collector may only collect 25 pounds per day, not to exceed 100 pounds per year---and this weight includes matrix. This part of the Rule was modified after the codified collecting rules long established for petrified wood; however, there is a big difference between specimens of petrified wood and invertebrate fossils. Petrified wood is usually collected without matrix while many invertebrate fossils are collected with matrix. Rockhounds do not want to take a chance of breaking the specimen by chipping away the matrix in the

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field. Collectors also may not pool a total weight with their buddy in order to collect larger specimens. What does this mean for the collection of larger fossils weighing over 25 pounds? I don't know. Perhaps it indicates a permit is required? However, an issued permit requires a collector give up his/her specimen to a museum or repository!

Collectors also may not disturb over 1 square yard of the landscape, and your digging buddy must be at least ten feet away from your land disturbance. I am uncertain if a collector may have several disturbances per day? At any rate, like all good rockhounds, collectors must fill in their disturbance holes.

This restrictive regulation on land disturbance continues to be a problem for me. If the BLM really wants to stop major land disturbance, then I suggest examining extensive disturbance by domestic livestock, off-trail ATV and OHV riders, and even off-trail mountain bikers and hikers (among others). I support these multi-use land activities, in moderation, but simply want to point out that land disturbance by rockhounds is minimal compared to these other large-scale activities.

Casually collected fossils may only be used in a personal collection and may not be sold, bartered, used for financial gain, or research! I presume this section also means that club members may not use the collected common plants and animals in their club silent auctions. What about gifting a common plant or invertebrate during a club gift exchange? Does bartering mean that fossil interest groups may not trade collected fossil specimens? I don't have those answers. But to me the interesting aspect of this tenet is that the casual collector may not use his/her collected fossils for research! The federal agencies want the collector to get a permit if any of the fossils are used in a research project. I presume the point behind this requirement is to make certain that fossils in the research project are documented as to provenance and placed in an accredited repository. However, I would like to suggest that any casually collected fossils could be turned voluntarily over to a repository before results of the research are reported. A case in point---our rock club-sponsored Pebble Pups and Junior Scientists collect fossils and actually write up reports (sometimes published) and present results at meetings where abstracts are refereed. How can an agency expect a group of Pebble Pubs to submit a permit application (see below)?

Another set of questions, then, involves the definition of research. If a collector completes a study on a casually collected fossils and later presents information on such organisms at a rock/mineral club meeting---is this research? What if the collector "publishes" results of their study in a club or federation newsletter, or on a Blog---is this research? Questions to be answered. I do not want some of these restrictive clauses in the Rule to stifle the interest of our children and young adults.

As with the USFS regulations, the Rule requires that only hand tools may be used in collecting fossils. These excavation tools may not be motorized and must be light and small enough to be hand-carried by one person. Does this mean that my geological hammer may not be carried in my backpack, or must it be hand-carried? Does it mean that I cannot bring along a two-wheel cart to pack a 25-pound specimen back to the vehicle (my knees will not allow carrying 25 pounds plus equipment)? Luckily, Interior listened to criticism directed at USFS over their regulation about size of collecting tools-- but not large tools such as full-sized shovels or pick axes. I don't have any trouble carrying a full-size shovel in my hand!

Unfortunately, Interior chose not to rid the regulations of the permitting process for small groups of rockhounds. I argued against this rule implemented by the USFS without success. As I read the rules, and perhaps they are beyond my comprehension, it is my understanding that groups of rockhounds heading out to collect some invertebrate fossils must have a permit. I can understand permitting a group of professionals going out to quarry a marine limestone looking for specific ammonites. I cannot understand requiring a permit in order for a club's fossil interest group, or a group of Pebble Pups, heading out on a beautiful fall afternoon to do some prospecting for fossils! If a group of Pebble Pups, some as young as six years old, go fossil hunting at a locality where both common and uncommon invertebrate fossils may be found, then a permit is required (as I try to understand the Rule). For example, I can envision local localities, actually a number of old quarries, where there is a mixture of common and uncommon lower Paleozoic fossils repre-

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sented. These quarries have been prospected for years and rockhounds have almost always submitted their interesting specimens to museums and repositories. However, the permitting process is a very onerous experience for "ordinary" rockhounds, so what happens? Collection without a permit continues, with loss of interesting specimens heading to a museum due to a fear of prosecution, or collecting stops and children and adult rockhounds simply drop out.

Assume that a permitted fossil prospecting activity could be pulled off, please note that all prospectors must deposit their fossil finds in a designated repository. Can you imagine taking kids on a fossil hunt and then taking away their finds? In addition, the rules and regulations concerning report writing are onerous (for most rockhounds) and would require additional time.

As a former classroom instructor, I could not imagine applying for a permit every time I took my students fossil hunting. Certainly, a permit was required whenever a student researcher was out collecting fossils and describing stratigraphy---these collected fossils were deposited in a repository. In fact, during my early days of writing environmental impact statements (fossils) for projects crossing federal lands I devised my own permits (with approval from the agencies) from items like logging permits. I am not against permits; however, I simply want to allow for some slack with non-professional collectors.

In addition, mandating that all permitees must deposit their fossils in an approved repository creates other concerns since the requirements for establishing a repository are pretty stiff. Most colleges and universities with a scientific staff have something, a museum or curated collection, that could qualify as a repository. But what about the poor old group of rockhounds---would nearby repositories curate their specimens without monetary assistance (Permittee is responsible for the costs, monetary and otherwise, of the permitted activity, including fieldwork, data analysis, report preparation, curation of the collection and its associated records consistent with subpart C of this part)? I don't know. Once fossils are collected under a permit they remain the property of the Agency in perpetuity. Even if a federal authorized officer removes the collected fossils from the research collection the specimens still remain in repository collection--"somewhere."

My comments pertain to only a small part of the Rule but are, in my opinion, most directly related to fossil collecting by rockhounds and other amateurs. I want members of our rock and mineral clubs, including Pebble Pups and Junior Scientists, to have an opportunity to collect fossils without fear of "breaking the law." I want these members to have an opportunity to study and photograph and learn about specimens without fear their work is research and requires a permit. I want members, especially younger members, to have an opportunity to present information at professional meetings about their fossils finds without fear their study requires a permit. But, I would also expect the mentors of the collector to require fossil specimens be offered to a museum and/or repository along with appropriate provenance information. I believe there must be some middle ground in this entire permitting and land disturbance issue. If not, we may begin to lose generations of future STEM graduates that our nation badly needs.

With that said, please note that I have several friends and acquaintances working in the federal agencies. In fact, I take pride in the fact that some Agency paleontologists were my students and we have remained friends for decades---they do excellent work. In visiting with these paleontologists, I have found they are, in their opinion, constrained by federal law found in the PRPA. Perhaps they are; however, I still believe in compromise and middle ground and "working things out." Is this possible with the rules in the PRPA? I don't know. Could interpretation of PRPA regulations be less "strict." I don't know.

What I do know is that these new laws (USFS) and the proposed Rule (Interior) are almost impossible to enforce---I am not advocating breaking the law but simply stating my strong opinion that collecting of invertebrate fossils on federal lands will go underground. Unlike vertebrate fossils, where poachers are interested in selling their unlawfully collected specimens, rockhounds collecting invertebrate fossils are interested in building up a personal collection, trading specimens with club members, and perhaps most importantly helping young children and their schools build collec-

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PEBBLE PUPS CORNER

CSMS Pebble Pups & Junior Group

The Junior Group & Pebble Pups meet at the Senior Center every third Thursday at 5:30 PM until 6:15 PM or so. We only meet during the academic year, and we include January. So, it is Sept through May. Special announcements and field trips are noted on our blog http://pebblepups.blogspot.com and through the CSMS website.

Dear Readers, The following article deserves to be shared. Once your new editor figures out what to do with the format, you will be able to read the entire piece either on the new website or here in the Pick&Pack.

The Rudist Fossil Story

By Jack Shimon (adapted from a presentation given at the Denver Gem Show, September 17, 2016)

When I was 6-1/2 years old my Grandpa took me fossil hunting in central Texas. We went to a limestone quarry that he had visited earlier and was given permission to enter and collect from. This was one of my first fossil hunting trips and I really enjoyed it. The reef we went to (now a quarry) had huge boulders of limestone and tube like things in it later to be found out as rudists.

Photo credit: Mike Hursey

2017 CSMS Officers

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Mike Nelson, Federation Representative

Ernie Hanlon, Federation Representative

Sub-Group Responsibilities for Refreshments for General Assembly Meetings		
Feb. Crystals	Mar. Faceting	Apr. Fossil
May Jewelry	June Lapidary	July Micromount
Aug. No Meeting	Sept. Board	Oct. Crystal
Nov. Faceting	Dec. Christmas Party	

2016 Christmas Potluck and Silent Auction

SECRETARY'S SPOT
by Barbara Middlemist

No General Meeting Minutes for the Colorado Springs Mineralogical Society —January 19, 2017

2017 CSMS Officers Installation Banquet

From left to right are: Ariel Dickens, Member-at-Large; Larry Jones, Pick&Pack Editor; Ann Proctor, Treasurer; Lisa Kinder, Co-Vice-President; Norma Alexander-Rhodes, Membership Chairman; Ernie Hanlon, President; Barbara Middlemist, Secretary. Not pictured are Mark Lemesany, Co-Vice-President; and Doreen Schmidt, Member-at-Large.

Jean Cowman

The Colorado Springs Mineralogical Society held the installation of 2017 CSMS Officer's Banquet on January 19 at The Golden Corral. Jean Cowman gave an outstanding presentation on her and Richard Fretterd's experience in collecting Topaz in the Pikes Peak pegmatite. A good time was had by all of those in attendance.

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tions. Also unlike the somewhat easily identified vertebrate fossils (yep, that is a dinosaur skull so leave it alone), invertebrate fossils are much more difficult to identify. I am guessing that most rockhound amateurs will have great difficulty identifying uncommon fossils (need a permit) from common fossils (casual collecting).

Comments on the proposed rule must be received by February 6, 2017. So, what advice can I offer? First of all, take the time to read, or attempt to read, the Rule published in the Federal Register: https://www.federalregister.gov/documents/2016/12/07/2016-29244/paleontological-resources-preservation.

After this little chore, rockhounds should submit personal or club comments, probably the latter. Do not paste and copy verbiage from a variety of other comment letters that are circulating around on the internet. These form letters will simply be treated as such and all will be lumped together as a single comment.

As members/clubs read provisions of the Rule, note the instructions about providing comments (Regulation Identifier Number (RIN) 1093–AA16). Remember that commenters must provide, at a minimum, first and last name(s), city, state, & country. All other fields of information are optional. Remember also that much of this information will be publicly viewable.

Generally:

- Comments may be typed in the box provided or they may be uploaded as attachments (WORD documents or PDF files only). Personal letters via snail mail will also be accepted.
- Comments may be brief or in-depth/well-researched. Keep comments civil and straightforward. Comments using offensive terms, threats, or other inappropriate language will be disregarded.
- Be certain to reference areas of the Rule on which you are commenting.
- The Department of Interior (BLM and Fish and Wildlife), and the USFS (Department of Agriculture) have a mandate to protect certain fossils as codified in the PRPA. Therefore, the law is in place and Federal agencies are now interpreting the tenets of said law. Commenters should not criticize the law as those comments are not applicable to the proposed Rule.

Specifically, there are several areas of the Rule that concern me and I intend to submit comments with facts supporting my thoughts and recommendations for new interpretations and scenarios. Perhaps readers are also interested in these areas and could provide their personalized comments.

&49.805—49.810.

- Casual collecting
- Common fossils
- Reasonable amount
- Negligible disturbance
- Multiple collectors
- Excavation tools

&49.80

- The entire permitting system

&49.200

- Repositories

Of those listed above, the permitting and repository regulations, along with reasonable amount and negligible disturbance, seem the most critical areas. I would ask readers to examine all areas and submit comments and suggestions.

SAVE THE DATE

NONFICTION WRITING CLASS

Western Museum of Mining and Industry, Colorado Springs, CO

February, 18 2017

10:00 am to 1 pm

Learn how to write articles for the **Colorado Springs Mineralogical Society's newsletter—*Pick N Pack*.** Express what you know in a short article for the newsletter. This class will explore how to write about rocks, minerals, fossils, and mining. You will learn about obtaining photos to go with your articles.

Nonfiction is writing about the real world and appears in magazines, newspapers, books, blogs, websites. Today nonfiction is now more diverse and creative as it embraces many styles of writing. There are six major forms of creative nonfiction: memoir, personal essay, feature articles, profiles, reviews, and travel writing. Although this class will focus on crafting articles for the newsletter, we will briefly cover the other forms of creative nonfiction. These other forms are also appropriate for the club's newsletter.

This course also covers writing blogs and how to create one. Writing nonfiction is an excellent way for beginners and experienced writers to be published. This class will examine several strategies for publishing your work. This class is also open to members, older pebble pups, and the public, and is perfect for anyone who wants to improve their writing skills and learn more about nonfiction writing.

What you will learn:

- The creative mind and the writing life
- Finding a story
- Write great beginnings
- Launching the narrative arc
- **Building dramatic sentences**

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- **Cliffhangers and page turners**
- The basic elements of writing nonfiction, including point of view, setting, and plot
- Developing characters
- The basics of interviewing and conducting research
- Tips to help you write in a clear and concise manner
- Obtaining photographs for your writing
- How to revise and polish your nonfiction writing
- **Getting published**

The course fee is $35 for adults and $7 for students (21 and under). Western Museum of Mining and Industry members receive $5 off adult fee, and $2 off the student fee. Call the museum for more details and to register: (719) 488-0880.

Teachers:

Steven Wade Veatch: noted nonfiction author of Colorado mining history, earth science, and paleontology.

Joshua Clark: emerging writer and explorer of the creative mind.

By Guess and By Golly

Oscar Price

I fell in love with rock hounding as a child growing up on a farm in Southwest Virginia. I collected and looked for Indian artifacts in plowed fields after a hard rain or when chopping weeds out of the corn fields and tobacco patch.

Where I grew up we didn't have a Mineralogical Society to answer childrens' questions, such as "What type of rock is this?" I learned more about making homemade wine out of fox grapes that grew wild in the Appalachian mountains, or thumping on a watermelon listening for a hollow sound to make sure it was ripe and ready to pick, than I knew about different minerals and rocks.

As most know by now the CSMS celebrated its 80th year this past November. I was privileged to have known one of the founders of the club, Mr. Willard Wulff. The CSMS was founded in 1936, the year I was born.

When I joined CSMS, you needed a sponsor. The late George Fisher was my sponsor. We became good friends with George and Betty Fisher. George taught me about pegmatites and the where and how to find crystals and how to clean them. I still remember when George invited me to go with him up to Specimen Rock to prospect for smoky quartz and amazonite crystals.

We had to park the car a long distance down from Specimen Rock on a gravel road and walk up the mountain a ways. He explained to me on the way up to look for rusty looking dirt that had leached out of the ground and to follow it up the slope and check the loose gravel for clear white quartz and feldspar with faces. He said the best place to look for crystals was near pegmatites. I still remember the things George told me to look for. "Follow the rusty dirt to where it stops, then dig down in hopes you find a rock ledge with an opening.

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If you are lucky that's where you will find a pocket with crystals."

After walking up that steep incline, we finally made it to Specimen Rock. George went a few yards around the mountain and I went the opposite way. About 30 minutes later I looked down on the ground and there it was--that rusty looking dirt with a streak running up the slope. I called for George to come take a look. He said, "Great, you have a good eye, this is what we are looking for." We followed the rusty dirt up the slope a few feet while checking the gravel for faces and to see where the rusty dirt ended. We dug down and "bingo" that was when I found my first smoky quartz and amazonite pocket.

I still have a large feldspar crystal that came out of that pocket. When I see it, it brings back great memories of field trips and the days back when I could climb the mountains like a mountain goat.

When we started back down the path heading for where we had parked the car, George was a few steps ahead of me. He started to take a different path than we had taken up the hill. I hollered to George and asked, "Why are you going down a different path?" He said, "What makes you think this is not the same path we came up on?" I told him I had marked the trail by breaking small limbs off the ends of the scrub oak trees at each junction where another path joined the one we were walking on.

It was tough growing up in the Appalachian mountains in Southwest Virginia. Marking your trail while ginseng hunting helped you find your way out of the mountainous forest where vines growing up the trees that could make it dark on a cloudy day. The broken limbs on the trees showed you the way out of the mountains and back where you started from.

I have never forgotten that day prospecting with George at Specimen Rock. It was like looking for hidden treasure and it sure gave me rock hound fever.

The CSMS is a great club for people of all ages and walks of life, but like a lot of things it has changed slightly over the years. We don't go by Robert's Rules of Order anymore and maybe it's not necessary. I believe we should always say the Pledge of Allegiance and show a little respect for our country. The club officers have done and are doing a great job, maybe a little more informal than it used to be, but that is a good thing.

Joyce and I are lifetime members of CSMS and have been members of the of the Fossil Study satellite group from its beginning. The founder of the Fossil Group was the late John Harrington. CSMS has brought us a lot of enjoyment over the years. I remember the good times Joyce and I had camping. Even if the fish were biting good, we still took time to go fossil hunting. I can still see the excitement and smile on Joyce's face when she found a pretty piece of fossilized wood. We always took our little rock hound poodle Ammie with us. Ammie loved the outdoors as much as we did.

Yes, maybe we all would like to turn back the clock, especially those who can only look at the mountains but can't climb them any more, and prospect for those beautiful gem stones hiding somewhere beneath the ground.

I remember the Fossil Group going on a field trip years ago with the late Dr. Fisher from Colorado College. What a wealth of knowledge he had, and always willing to share with us. We need to have more field trips for new members. We don't need to show them our best fishing hole, but we need to share the river with them. Buddy-buddy field trips are OK but group field trips are more fun. I wish we didn't have so many empty seats at our satellite group meetings. Maybe more show and tell or more sugar free ice cream would help.

We still don't know what's in our oceans. So many new things have been discovered just in the last few years. Only about 5% of the depths have been explored. There could be a wealth of minerals under the sea just waiting to be discovered. And global warming has many facets to be explored. It's great we have Pebble Pups (Earth Scientists) and great leaders that have taught them more about dinosaurs than the movie Jurassic Park. The Earth Scientists will be the ones making exciting new discoveries and rewriting the science text books of tomorrow.

We are living in a fast-changing world, but parents need to take time to take their children up in the mountains to see the beauty and smell the clean, fresh air. Get away from violent video games, cell phones,

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iPods and texting. Teach them to respect one another and Mother Earth.

It seems sometimes we are looking at our world through a keyhole and some scientists have done a little of "By Guess And By Golly" like we all have guessed about things ourselves.

Scientists have rewritten the text on what caused, or may have helped cause, the extinction of the dinosaurs. About 65 million years ago a huge asteroid hit the earth and scientists believe it was what caused the extinction of dinosaurs and changed the earth forever. Researchers back in 1980 discovered the location of a massive volcanic eruption that took place in India just before the asteroid smashed into the earth. The volcano piled up 1-1/2 miles of rock and debris and spewed out millions of tons of toxic gas fumes and fly ash containing Iridium into the atmosphere all over the world. Other volcanic eruptions were happening throughout the world during that same period.

Once the scientists believed that Iridium only came from asteroids hitting the earth but have since discovered that the earth's core contains Iridium. The dinosaurs ate plants covered with fly ash containing Iridium and other toxic chemicals. Iridium causes calcium carbonate to turn hard. When the dinosaurs ate the plants, their eggs (made from calcium carbonate) became too hard for the babies to break through. This also had the same effect on the carnivores that ate the plant eaters.

The Iridium also had a killing effect on things living in the oceans, especially on algae feeders (Ref: The Journal of the Geological Society, The University of Exeter, the University of Edinburgh Imperial College London).

Maybe the dinosaurs tracks down at Picketwire were preserved by Iridium that was in the volcanic ash, which mixed with calcium carbonate in the mud from the lake water, which allowed the tracks to harden and set up quickly, similar to Portland cement. This is a good example of my "By Guess and By Golly."

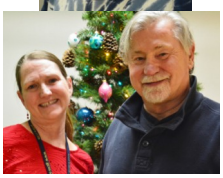
In the fossil world, the earliest fossil evidence of life on earth has recently been found in rocks 3.7 billion years old in Greenland. This raises chances of life on Mars when both planets were similar to the ones found desolate, scientists said. The experts found humps between 0.4 and 1.6 inches tall in rocks in Southwest Greenland that they believe were fossilized groups of microbes similar to those found in seas from Bermuda to Australasia.

If confirmed as fossilized communities of bacteria know as Stromatalites, rather than a freak natural formation, the lumps would pre-date fossils found in Australia as the earliest evidence of life on earth by 220 million years. This indicates the earth was no longer some sort of hellish place eons ago. As Allen Nutman of the University of Wollongong said, "It was a place life could flourish."

Some scientists now believe Lucy jumped out of a tree. This is why I titled this article "By Guess and by Golly." In speculating about Lucy, I believe scientists are guessing, by golly, unless they can tell me the type of tree Lucy jumped out of, then maybe I'll say, "I'll be a monkey's uncle."

Maybe some day one of the CSMS's young Earth Scientists, using the latest scientific instruments, will check out samples of our Colorado ancient ocean floor and discover new things about the universe and the world we live in.

Christmas 2016 Pot Luck and Silent Auction





Classifieds

PICK&PACK

Our Staff...
Larry Jones—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 **20th 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.

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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. **Visitors are always welcome**. 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.csms1936.com

CSMS is a Member of the following organizatons:

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

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