

Jade State News

WYOMING STATE MINERAL AND GEM SOCIETY, Inc. - P.O. Box 697, CODY, WYOMING 82414

Volume 2015, Issue 4

WYOMING'S JURASSIC WORLD



**November 2015
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Figure 1-Pangea with Modern Geographical Names

I. JURASSIC PALEOGEOGRAPHY

The North American Jurassic record is the poorest of the 3 Mesozoic periods, with few outcrops at the surface and limited to only isolated locations within the northern plains of the United States and Canada. However, Wyoming does have abundant and complete surface exposures of the Jurassic found in its Sundance and Morrison rock formations. Geologists and paleontologists from around the world come to explore, study, and collect Wyoming's Jurassic World.

The Jurassic Period was the second segment of the Mesozoic Era. It occurred from about 200 to 145 million years ago, following the Triassic Period and preceding the Cretaceous Period. During this period of geological time, Wyoming was part of the supercontinent Pangea. **(Figure 1-Pangea)**

Article continued page 5

**Wyoming State Mineral & Gem
Society
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Additional information on club meeting locations,
dates and times is available on pages 13 and 14

The Wyoming State Mineral and Gem Society (WSMGS) is a non-profit organization, with the purpose of educating, promoting and developing an interest and understanding in the Earth Sciences, Lapidary Arts, and their related fields for its affiliated members as well as the general public. The WSMGS is a member of the Rocky Mountain Federation of Mineralogical Societies (RMFMS) and the American Federation of Mineralogical Societies (AFMS). WSMGS Member Clubs are located in Casper, Cheyenne, Cody, Powell, Riverton, and Torrington, Wyoming. The WSMGS invites you to explore our website for information about Wyoming's minerals, rocks, fossils, and gemstones as well as for an introduction to the people and places that rockhounds can visit, explore and learn.

You can find us at: <http://www.WSMGS.org>

WSMGS INFORMATION AND UPDATES *by Stan Strike, President*



I. WSMGS Board Meeting October 22, 2015

President's Report:

A. As discussed at the WSMGS Annual Meeting on July 16, 2015, the WSMGS would begin conducting their Board Meetings via email or Skype when appropriate. The first electronic Board Meeting was held October 22, 2015. Board Members Stan Strike, President; Linda Richendifer, Vice President; Carla Tillman, Secretary; Melvin Gustin, Treasurer; and Rod Baltus, Historian were present for the meeting. Verne Orcutt, JSN Editor was absent.

Electronic Board Meeting Agenda: Instructions to Board: Board members were sent agenda topics via Email with preliminary discussion on the topics. From the provided information, the Board members were able to discuss the information, provide additional input, and cast their individual vote to agree or disagree. The Board members were given 4 days to review the material and cast their vote via Email. The electronic Board Meeting went well with all present and in agreement on all topics.

B. An email was sent to all club contacts and WSMGS Board Members on October 3rd with attached forms and instructions to be distributed to the appropriate persons in the respective clubs. These same forms are available on the WSMGS webpage: Who We Are/Forms in Word and pdf format.

1. The Annual WSMGS Membership Dues Report is due by December 15th and is based on your total number of individual dues paying members that are 12 years and older as of October 31st.
2. The Annual Election of Officers Report is due as soon as possible after your club elects officers for the upcoming 2016 year.
3. Our Jade State News Editor-Verne Orcutt (jsn@wsmgs.org) would like each club to be represented in the November Jade State News. Please send a short summary of your summer field trips, activities, news and photos by November 13th.
4. **Save the Date:** The **2016 WSMGS State Mineral & Gem Show** will be hosted by Rex Young Rock Club in Torrington on **June 25th & 26th**.

Secretary's Report:

A. Annual WSMGS Membership Meeting Minutes (To be read and approved at 2016 WSMGS Annual Meeting)

Treasurer's Report:

A. Current WSMGS Treasurer's Report = \$2,691.77.

Old Business:

A. RMFMS Convention: WSMGS sponsored the 2015 RMFMS Convention in Cody at the Irma Hotel.
Convention Income earned by WSMGS = \$275.58

B. WSMGS co-sponsored the RMFMS Mineral & Gem Show. Received an income of 20% of the net profit = \$810.13

C. **Action Item #1-Purchase of Domain Name: wsmgs.org**

Discussion: WSMGS kept the domain name given by previous webmaster. As alias email addresses were assigned to WSMGS officers and club contacts, the same domain was used. For the RMFMS convention & show, a 2nd domain name was accidentally renewed. At a present cost of \$16.99/ year, the wsmgs.org can be purchased and the new shorter web site address and alias email address can be started in 2016. The other 2 domain names can be used until they expire. In the interim this will allow present users to connect to our website using the older domain names.

For additional information, see "II. UPDATES A." on page 4, mid page.

New Business:

A. **Action Item #2-Approval of WSMGS Officers Authorized to Execute Financial Transactions for WSMGS**

Discussion: New banking regulations require that the WSMGS Board vote to authorize persons to execute financial transactions for the benefit of the WSMGS organization.

Our present Bylaws reserve and limit this authority to the WSMGS treasurer and president: Art. VI-Section 7 Duties of Officers.

For those interested, the Bylaws are available in pdf format. On our website, click on "Who We Are", then Documents.

Continued at the top of page 4

WSMGS –By-Laws ARTICLE VI – OFFICERS, Section 7. Duties of Officers.

President:

- E.** Sign and execute, in lieu of the treasurer, all checks, notes, drafts, or other orders in the name of the organization and with the consent of the majority of the Board.
- F.** Cause all books, reports, statements, and certificates to be properly kept and filed as required by law.

Treasurer:

- A.** Have the care and custody of and be responsible for all monetary funds and securities of WSMGS and shall deposit such funds and securities in the name of WSMGS in such banks or safe depositories as the Board of Directors may designate.
- B.** The treasurer may make, sign, and endorse in the name of the WSMGS all checks, drafts, notes and other orders for the payment of money, and pay out and dispose of such under the direction of the Board of Directors.

Action Item #3- Selection of Wyoming Community Bank of Riverton to receive WSMGS transferred funds and future monetary transactions.

Discussion: Melvin Gustin and Stan Strike interviewed 2 Riverton Banks and agreed that the Wyoming Community Bank would best serve the WSMGS future needs.

II. UPDATES

- A.** The WSMGS Board purchased a new domain name from our web provider iPage- (wsmgs.org) to replace (wyminalandgemsociety.org) and (wygemandmineralsociety.org). This new domain name will simplify our email addresses which have already been installed on the WSMGS website as alias email names for all WSMGS officers and club contacts. All three domain names can be used to reach WSMGS on Google searches until the latter two expire next year. The WSMGS Board asks all WSMGS clubs, members, and officers to use the new alias email addresses beginning January 1, 2016 at which time the older domain email links will be deleted.

The new alias email addresses can be found on the wsmgs.org website under the heading- Who We Are.

- B.** WSMGS Treasurer- Mel Gustin and President-Stan Strike transferred the WSMGS financial account from the First National Bank in Cody to the Wyoming Community Bank in Riverton.
- C.** Additional Historical Evidence for the Existence of WSMGS prior to 1964.
 - 1.** An announcement in the Mineral Hobbyist-April 1953, p.28 about the Wyoming State Mineral & Gem Societies sent by RMFMS Vice President-Beth Simmons:

Wyoming State Convention in Cheyenne June 5-6, 1953

The Wyoming State Convention of Mineral & Gem Societies will be held June 5 and 6 in Cheyenne, Wyoming. Dealers are invited to write Mr. W. H. Sigler, 420 W. 1st Avenue, Cheyenne, Wyo. to reserve space.

- 2.** An announcement in the *Gems and Minerals*, November 1958, p. 80 sent by RMFMS Vice President-Beth Simmons:

Wyoming State Meet Set for Riverton, June 19- thru 21

The 1959 convention and Show of the Wyoming State Mineral and Gem Society will be held at Riverton, Wyo., June 19, 20, and 21, 1959. The Riverton Mineral and Gem Society, who will be host, has arranged for the Fremont County Fair Building for the show. The host also plans many special events and field trips. More information about this regional show can be obtained by writing to Mrs. Adam Wensky, Sect'y, 1017 East Loeb, Riverton, WY.

Beginning in the Triassic and during the Jurassic, plate tectonics caused Pangea to begin to separate. The supercontinent began to rotate, but the different components of the huge landmass rotated at different rates and then in different directions, forming rift valleys. One of these rifts opened the southern part of the North Atlantic Ocean and continued westward into the Gulf of Mexico. This was North America drifting westward, opening the Gulf of Mexico, forming the central Atlantic. As Greenland-North America separate from Europe-Africa and slide over the Pacific Ocean floor, mountain-building events are triggered that created the North American Cordillera (the Rocky Mountains and the Sierra Nevada). A huge arc was built on western North America and the Nevadan orogeny begins.

To accommodate the production of new seafloor along the proto-Atlantic Ocean, significant subduction zones (where seafloor is destroyed) were active along virtually all the continental margins around Pangea. All along the west coast of North, Central, and South America, plate tectonic activity in the subduction zones brought on the initial formation of north-south mountain ranges such as the Rocky Mountains and the Andes.

Along western North America, several terranes (islands or microcontinents riding on a moving plate) were brought east on oceanic crust and collided with the continent. These collisions added to the growth of the North American continent and its mountain chains. One mountain-building event, known as the Nevadan orogeny, resulted in the emplacement of massive igneous and metamorphic rocks from Alaska to Baja California.

During the Middle and early Late Jurassic, a sea extended south from the northern Pacific and Arctic Oceans to inundate vast portions of northwestern North America. During the Jurassic the extent of the oceans was far more widespread than they had been in the Triassic. These warm shallow seas were home to a rich diversity of life. The Western Interior Sea resulted as the sea level rose and flooded large portions of the North American continent including Wyoming.

This continent-wide marine (salt water) sea was named the Sundance Sea, and was fringed by strips of continental land on three sides. The resulting Sundance Sea was bound by a volcanic archipelago and the Ancestral Rocky Mountain Uplift to the west, and upland continental deposits to the east. See Figure 2 below.

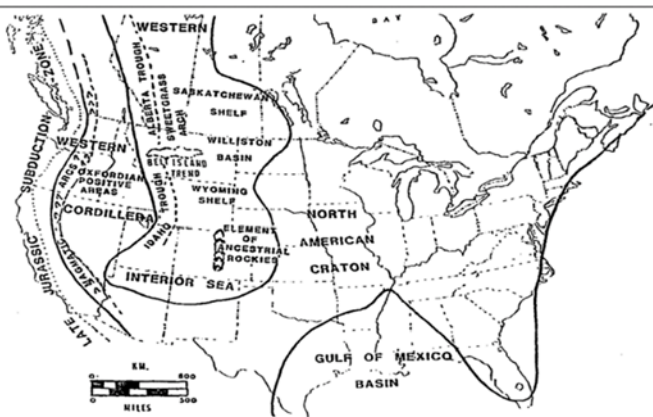


Figure 2: . The Sundance Sea or Western Interior Sea (Brenner, 1983)

JURASSIC DEPOSITIONAL ENVIRONMENT

As the Sundance Sea formed, its shorelines were gently sloping former coastal plains. These shorelines were subject to daily tides that varied monthly from 2-4 meters creating an extensive system of back-barrier lagoons along the Sundance Sea coast. Under these tide-dominated conditions, barrier islands are formed that are relatively short and "drumstick" shaped, and inlets are deep and numerous. It is thought that these inlets of deeper water that moved with the tides concentrated the invertebrate fossil shell deposits (coquina) found in the Sundance Formation. See Figure 3 below.

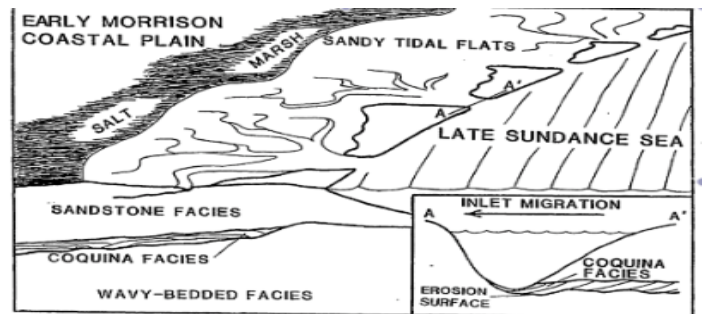


Figure 3: Sundance Sea Shore Features (Davis and Hays, 1984)

The Sundance Sea advanced and retreated repeatedly, leaving successive accumulations of marine sandstones, limestones, and shales creating the Sundance Formation. The shales are glauconitic-dark green and the sandstones are pale buff in color. In some locations there is an intermediate member of sandy shales and sandstones that are reddish in color with a basal member of red sandstone. The shales usually contain thin layers of limestone with coquina layers of abundant marine fossils.

The Sundance Formation consists of four depositional sequences, with the lower two being carbonate dominated and the upper two silici-clastic dominated. Two incised valley fills are also present. The presence of multiple depositional sequences and strong erosional sequence boundaries is the likely cause of the complicated lithostratigraphic nomenclature of the Sundance.

By Late Jurassic time the Sundance Seaway had retreated to the northwest and disappeared. Late Jurassic begins with sediments eroded from the mountains to the west being deposited in fresh-water river floodplains and stream channels creating the Morrison Formation. See Figure 4 below.

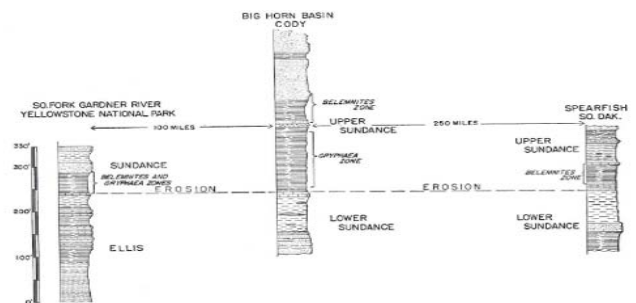


Figure 4: Sundance Formation Distributions Across Northern Wyoming (Neeley 1937)

Article continued page 6

JURASSIC PALEOBIOLOGY

The Jurassic Period of the Mesozoic Era begins after a Great Extinction of Life at the end of the Triassic Period about 200 million years ago. By studying the fossil record, it is known that entire classifications of Families (23%), Genus (48%), and species (70%) went extinct. Most birds and crocodylians, pterosaurs, most mammals, mammal-like reptiles, and large amphibians were eliminated, leaving dinosaurs with little terrestrial competition.

Many groups of vertebrate and invertebrate organisms important in the modern world made their first appearance during the Jurassic. As the Sundance Sea evolved, its warm shallow seas were home to a great diversity of invertebrates. Life was especially diverse in the Sundance Sea—thriving reef ecosystems, shallow-water invertebrate communities, and large swimming predators, including reptiles and squid-like animals (belemnites).

Sponges corals, bryozoa, gastropods, bivalves, and ammonoid, and belemnite cephalopods all flourished, the latter two groups becoming the dominant nektonic (free swimming) invertebrates for the rest of the Mesozoic. Freshwater bivalves (clams), snails, and brachiopod Crustacea were common. Brachiopods and Crinoids continued, but were nowhere like their Paleozoic glory.

On land, dinosaurs and flying pterosaurs dominated the ecosystems, and birds made their first appearance. Early mammals also were present, though they were still fairly insignificant. Insect populations were diverse, and plants were dominated by the gymnosperms, or “naked-seed” plants.

Wyoming's Jurassic rock record and the fossils it contains are represented by the Sundance Formation which was created by the salt water Sundance sea and the Morrison formation that was the result of freshwater streams that eroded and deposited in late Jurassic geological time.

The Jurassic Sundance Formation found in the Big-horn Basin, Wyoming, contains a rich suite of invertebrate and vertebrate fossils (including large and rare marine reptiles and the World's most abundant and varied dinosaur fossil sites). The dinosaurs featured in the movie Jurassic World can be found as fossils in the Morrison Formation and lived along the edges of the Sundance Sea during the late Jurassic Period. However, most of the Jurassic World of Wyoming is represented by the numerous invertebrate fossils of the Sundance formation that once lived in Wyoming's Sundance Sea.

Reference Sources for Wyoming's Jurassic World

- (1) <http://io9.com/heres-what-pangea-lookslike-mapped-with-modern-politi-509812695>
- (2) https://en.wikipedia.org/wiki/Extinction_event
- (3) <http://www.britannica.com/science/Jurassic-Period>,
- (4) <https://en.wikipedia.org/wiki/Jurassic>
- (5) <http://palaeos.com/mesozoic/jurassic/jurassic.htm>
- (6) http://cactus.dixie.edu/jharris/Sundance_Tracks.pdf
- (7) <http://www.wsgs.wyo.gov/products/wsgs-1937-r-05.pdf>
- (8) <http://palaios.geoscienceworld.org/ontent/29/6/277.abstract>

WYOMING'S JURASSIC BELEMNITE FOSSIL

Belemnites are an extinct group of marine cephalopods, which existed in Wyoming during the Jurassic Period of the Mesozoic Era and can be found in the Sundance Formation. They became extinct along with the dinosaurs at the end of the Cretaceous Period. The name "belemnite" comes from the Greek word meaning "dart or arrow".

Belemnites were squid-like. They possessed ten arms of equal length studded with small inward-curving hooks used for grasping prey. Rare fossils that preserved the soft parts of belemnites indicate that like modern squids, they possessed an ink sac, hard beaks, tail fins that were either apical or lateral, and large eyes. Additionally they had a tongue-like projection from the main body of the shell. Well preserved specimens have even retained evidence of strong muscular fibers in the mantle, indicating that they were powerful swimmers like modern squid and unlike other cephalopods of their time such as ammonoids and nautiloids. (**Figures 1, 2, and 3 Jurassic Period Belemnite**)



Figure 1: An Extinct Jurassic Belemnite

Belemnites were distinct from modern squid by possessing hard internal skeletons. The internal skeleton was composed of the guard or rostrum, a heavy solid structure at the back end of the belemnite. The rostrum was usually bullet-shaped and composed of calcite. Due to its calcite makeup, the rostrum is often the only remains of belemnites that are preserved as a fossil.

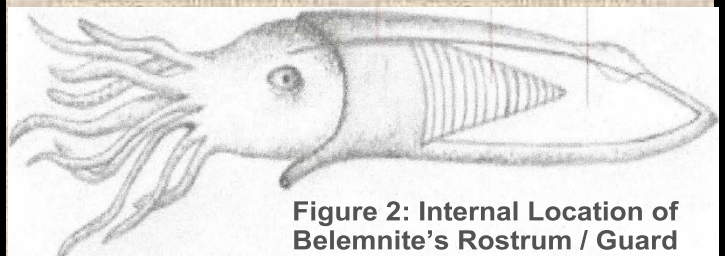


Figure 2: Internal Location of Belemnite's Rostrum / Guard

Article continued on page 7

Article continued from page 6

Figure 3- Fossilized Belemnite Rostrums / Guards



Reference Sources Wyoming's Jurassic Belemnite Fossil

1. Spence Oil Field Belemnites Field Trip by Ross Gorman-Cody 59ers Rock Club
2. <http://www.ucmp.berkeley.edu/taxa/inverts/mollusca/cephalopoda.php>
3. <https://en.wikipedia.org/wiki/Belemnitida>
4. <https://simple.wikipedia.org/wiki/Belemnite>
5. <http://www.ukfossils.co.uk/guides/belemnites.htm>
6. <http://www.bgs.ac.uk/discoveringGeology/time/Fossilfocus/>

Gryphaea - Devil's Toenails

Gryphaea is an extinct molluskan genus that is related to modern day oysters. Paleontologists trace the fossil remains of genus Gryphaea in sedimentary rocks dating from the Triassic Period to the Eocene Epoch but were most common during the Jurassic Period. In Wyoming, Gryphaea are found in the Sundance Formation, which is Jurassic in age (200-145 million years ago).

Figure 1- Gryphaea)



Gryphaea is a Bivalve

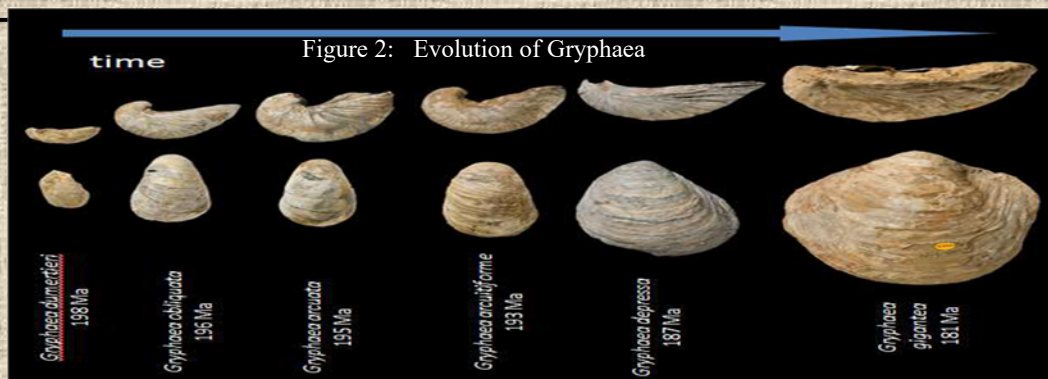


Graphaea arcuata Lamark
Synonym : Graphaea incurva

The soft parts of the Gryphaea animal were enclosed and protected inside the bivalve shell, much like the modern-day oyster as they belong to the same family. Gryphaea lived in large colonies on the sea-floor of Wyoming's warm shallow Sundance Sea. With their shells half-buried in the mud, Gryphaea fed on debris and plankton by filtering water through their gills.

There are different species of Gyphaea which show a change of shape through time. There are possibly as many as 38 species of Gryphaea, but only two are commonly found. Gryphaea arcuata was known in medieval English folklore as "devil's toenail" due to the curved shape.

Cooler conditions were optimal for Gryphaea arcuata which encouraged large, thick and narrow shell growth, gradually through time, the shell of Gryphaea became bigger, thinner and flatter. The interpretation is that the wider shell provided better stability in energetic waters. The periods of evolution were driven by the need to adapt the shell for reclining on muddy, early Jurassic sea-floors. Adaptation to a stable food supply is thought to have driven the evolutionary increase in shell size; this trend can also be seen in other early Jurassic bivalves. Increase in size affects physical stability which probably explains the shell becoming bigger, broader, thinner and flatter.

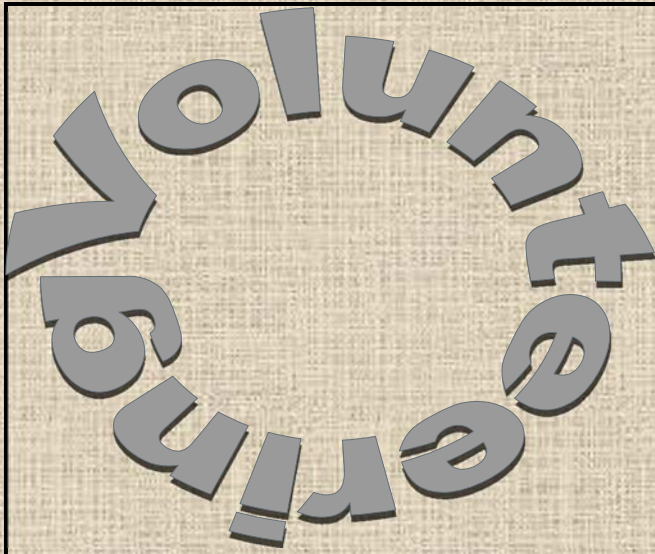


References:

- (1) www.nhm.ac.uk/.../Gryphaea%20%20f...
- (2) <http://www.britannica.com/animal/Gryphae>
- (3) <http://www.scottishgeology.com/geo/scotlands-fossils/gryphaea/>
- (4) <http://www.oysters.us/primordial.html>
- (5) <https://sites.google.com/site/fossilsoftheeastyorkshirecoast/collections/gryphaea>

WSMGS BOARD'S THANKSGIVING LIST

By Stan Strike



As fall passes, the cold winter weather blows in and we will have more time to slow down, look back on the past year, and think about the coming holidays and new year.

This would also be an excellent time to consider the following questions, and how **YOU** could help your club grow, by participating in some of the official and volunteer duties. The hobby of rockhounding is a lot of fun and educational, especially when you can do your part by lending a helping hand, or volunteering to assist in a leadership role.

Take a moment or two, look at the questions and make a personal assessment to see where you might fit in.

CLUB MEMBER-WHICH ARE YOU??

Are you an active member-the kind that would be missed?

Or are you just content that your name is on the list?
Do you attend the meetings and mingle with the flock,

Or do you stay at home and criticize and knock?

Do you take an active part and help your club along,

Or are you satisfied to simply say that you belong?

Do you ever volunteer to help the guiding stick,

Or leave the work to just a few-then talk about the clique?

Come out to the meetings, and help with hand and heart.

Don't just be a member, but take an active part!

Just think this over member-you know right from wrong:

ARE YOU AN ACTIVE MEMBER, OR DO YOU JUST BELONG?

[From Tropic Topics, 1987 via The Stone Age News and Jade State News-2/ 1990]

The Wyoming State Mineral and Gem Society Board would like to extend a special Thanksgiving to:

- the Cody 59ers & Shoshone Rock Clubs for hosting the 2015 Mineral & Gem Show.
- the educational speakers for the 2015 Show: Cliff & Row Manuel (Geoscience Center),
- David Ramberg (Western Dakota Gem & Mineral Society), Wayne Sutherland (WY Geological Survey), Arvid Aase Fossil Butte National Monument).
- the field trip leaders for the 2015 Show: Larry Oliveria, Ian Parsons, Heather Baker, Bobby Feketi, and Cliff & Row Manuel.
- Lynn Neale (Shoshone Rock Club) and Larry Gorcheski (Golden Buffalo Jewelry) for donating their time and knowledge to create a State Rock Hound of the Year Bolo.
- the Riverton Mineral & Gem Society and the Cheyenne Mineral & Gem Society for their extensive field trip programs.
- the Natrona County Rockhounds and the Cheyenne Mineral & Gem Society for continuing to sponsor annual Mineral & Gem Shows.
- Bob King for his many years of outstanding leadership to the Cheyenne Mineral & Gem Society and for promoting rock hounding to nonmembers.
- the Rex Young Rock Club for sponsoring the 2016 Mineral & Gem Show in Torrington.
- to Marlene Sibley who donates her expertise to create & up date our website, wsmgs.org.
- to Verne Orcutt., for spending countless hours creating the Jade State News.
- those retired WSMGS Board members who served all of us for several terms: Mary Ann Northrup, Jim McGarvey, Richard Heumier, and George Tillman.

Big Ben Watch Toss

Three visitors to London climb up the tower that houses Big Ben and decide to have a contest. They're going to throw their watches off the top, run down the stairs and try to catch the watches before they hit the ground.

The first tourist throws his watch, takes three steps and hears his watch crash. The second throws his watch and takes only two steps when he hears his watch shatter.

The third tosses his watch off the tower, jogs down the stairs, goes to a candy store, buys a snack, walks back to Big Ben and catches his watch. "How did you do that?" asks one of his friends.

"My watch is 30 minutes slow."

Anonymous author, from Joke of the Day

CLUB NEWS AND ANNOUNCEMENTS

The Shoshone Rock Club will hold their December pot luck at the Garland Community Church on Tuesday as usual, December 8th. Members who have not paid their 2016 annual dues can mail their dues to the club mail box: Shoshone Rock Club, P.O. Box 256, Powell, WY 82435, or pay at the December meeting. Dues for 2016 are \$15,00 per family or \$10.00 for one individual.

New officers and board members were voted in at our last meeting, and approved for the new year is as follows: President-Gary Olson, Vice President-Mary Vogel, Treasurer-Linda Thomas, and Sec.-Linna Beebe. Other members on the board are: Tuesdee Oswood, Richard Vogel, Lynn Neale and Mary Ann Northrup.

Ned Kelley presented the program entitled, NW Wyoming Rocks, at the Nov. 10th meeting.

Linna Beebe, Secretary



Above, November 10th Shoshone Club meeting, Ned Kelley Presenter of the program and club member Margaret Scranton whom he was talking to.



Left: Phyllis Preator author of the book, Behind the Shadows, McCulloch Peaks Early History and Stories. Phyllis gave a great report on her book using the Library Smart Board, then she and Lynette led the September 26th field trip to the MuCulloch Peaks.



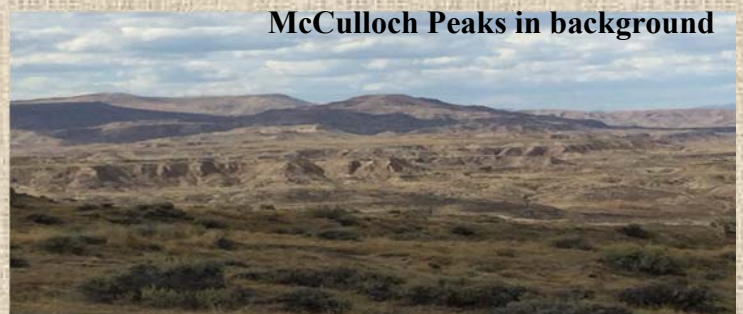
SRC members and guests on McCulloch Peaks trip September 26th led by Phyllis Preator and Lynette Kelley

Photo to the right, Mary Ann Northrup sent three images of the field trip today to the foothills of the Pryor Mountains, Nov. 14th. In the center of this picture to the right, wearing the brown sweat-shirt, is Dorine Strom who led the group. She is our new field trip chairmen for 2016, for the Shoshone Rock Club. Mary Ann said they found some chalcedony roses in shades of red or pink, petrified wood, and more. Linna Beebe



Phyllis Preator, author, "Behind the Shadows" and Lynette Hawkins Kelley, proof and index assistant.

McCulloch Peaks in background



SHOSHONE ROCK CLUB ACTIVITIES REPORT September and October 2015

Submitted by Linna Beebe

In September members were given a report on the RMGMS show by Stan Strike. All expenses had not been received; it looked like around \$4200 in profits was made. Lots of compliments were received on the show from dealers and attendees. Stan thanked our club for providing the luncheon & in other areas setting up the show and manning various stations during the show. Torrington will host the next WSMGS rock show in 2016. Our program speaker for the evening was Phyllis Preator, author of an interesting book, "Behind the Shadows, McCulloch Peaks Early History and Stories. Twenty years of research went into the writing of her book and the detailed information gathered was quite remarkable going back to the early 1900's plus. Phyllis had many interesting stories of nearby communities, fossils, wild horses, brands, and more. She offered to take members on a field trip into the McCulloch Peaks this month on a field trip (Sept. 26th) and Cody Club members were invited. Delightful weather and good roads, plus spotting horses in the distance made their day complete. Ken Beebe won the door prize of a Morrisonite cabochon. Refreshment host for the evening was Linda Thomas, and as always it's a treat.

In October board members and club members were delighted to fill and approve the new club officers and board members for 2016 as followed: President-Gary Olson, Vice President-Mary Vogel, Treasurer-Linda Thomas, & Secretary-Linna Beebe. Other board members: Tuesdee Oswood, Richard Vogel, Lynn Neale, Donna Brasher and Mary Ann Northrup. President Mary Ann Northrup had talked to Curt Talbot about leading a field trip and a trip was later confirmed to be on Oct. 24th, to the Ten Sleep area for Permian fossils. (Eleven members and guests from the SRC and Cody 59'ers were in attendance and nice fossils were found.) The Treasurers report was given and Linda Thomas acknowledged receipt of a check from the Cody 59'ers in the amount of \$500.00 for our assistance at the rock show in July. Our program for the evening was Rockhound Bingo. Members were to bring in three items to be given to winners. Each winner got to pick their choice from the table, and it was a fun evening. Some nice gifts for the winners were brought in such as wire wrapped jewelry, sunflower coral, Turritella agate, Dryhead agate, malachite earrings, WY moonstone, Spence brecciated jasper, Gem and Geology Magazines and more. Linna Beebe won the special gift of a mineral brought in by Stan Strike of rhodochrosite with calcite crystals. Marge Scranton won the door prize of a slab of green moss agate with a slab holder donated by Ken Beebe. Our refreshment host was Tuesdee Oswood & Joyce Johnston with Nancy Ryan filling in for Joyce and Mary Ann assisted also. Tuesdee appreciated the help as she had been in cast and Joyce was ill. Volunteers pitching in are much appreciated!

Potluck Dinner Christmas Party

When: Tuesday, December 8

Time: 6:30 PM

Where: Garland Community Church,

Program: Potluck Christmas party, speaker-Bill Tabacinski

Please bring a side dish or dessert, the meat will be provided by the club. Also, please bring a wrapped rock, fossil or other rock related item such as jewelry, etc. with a value of between \$5-\$10.00.

Guests are always welcome, but make sure you have a gift for them which will be piled up and traded for other wrapped items!

About our speaker for the December meeting:

Bill Tabacinski now lives in Cody, but his "talk on his rock hounding in the big apple", (according to the President of the Cody 59er's rock club, Roger Lyons) was that it was not only educational, but it was also personal, interesting and very funny. Bill is a retired agriculture and natural resources teacher who grew up in the Bronx in New York in the 50's. His creativity in scrounging for rocks in the big apple was a great program!

Any questions, please send me an e-mail or give me a call. Linna Beebe, Sec. 307 899 2518

God is watching

At a Catholic school, there was a "meet the teacher" open house for the 2nd graders. After the meeting, a Nun announced that there would be a small reception afterwards in the cafeteria. All the children and parents filed in, and saw on a table a plate of apples, a plate of cookies, and some water bottles and juice. As the children went through the line, one boy saw that there was a sign on the plate of apples that said, "Take only one. God is watching." So, the boy took an apple and moved on to the cookies. He helped himself, and then took a small piece of paper, and wrote: "Take all you want". God is watching the apples." *By anonymous from USA.*

Cody '59ers

CODY '59ers FIELD TRIP November 7th to the Red Gulch Dinosaur Track site, and then on to collecting areas for fossils hosted by Ross Gorman. Photos by Jim Ingram

A note from the editor: The Cody 59'ers will have had their Christmas Dinner Party (December 3rd) at the Sunset House by the time this publication has been completed. In an effort to present a good representation of the club activities' I will extract the important and most current material from Roger's notes so as to provide an update for all interested parties.

Respectfully, Verne Orcutt, editor JSN

Club Activities and Announcements

by Roger Lyons, President

November 8th

First a "Well done" to Ross Gorman and Larry Oliveria for hosting a great outing... It went smoothly with good participation. We had at least 7 vehicles and perhaps close to 20 People including the youngsters. Although cool and a bit breezy it was a great day to be out. Larry gave participants a free copy of "Golden Guides on Fossils." This is a handy pocket, size full color, Easy to read booklet on Fossils. I am sure they were not free for Larry, but for the members present it was a nice gesture. Larry's enthusiasm made the educational experience a fun event. In addition to making it a great educational experience we had a good social event. We sat around at the picnic shelter at Red Gulch for lunch...Roads were in good shape. At the Second stop Picking was easy, everyone picked up some specimens. Joy and I added to the small stash we have for "Free Giveaway" at the next Garage O Rama. (Baculites and Devils Toenails)..Well Done Guys!!!!...We need more like it but guess will have to wait till spring...

November 10th

At the meeting of the Shoshone Rock club in Powell November 10th, a few Shoshone members decided to take an impromptu outing on Saturday to the foot hills of the Pryor Mountains.

They invited any 59ers interested to join them. They met at the Mormon Church Parking lot in Cowley, WY. At 9:30AM, Saturday, the 14th of November. The Church is on the main Drag in Cowley on Highway 310. I do not know where they intend to go except to the foothills.. When I asked what they are hounding for they said it is A.K. A. (Also known as) Petrified Dino Dung... in other words near as I can guess it is Brecciated Jasper. It was suggested to pool up from Cody if you made your own travel plans but to be there at the Powell Club departure location in Cowley at 9:30. Weather looks good and based on last week's outing I am sure the roads will not need high clearance vehicles. Happy hounding.

November 14th

The regular meeting scheduled for November was canceled. There were a number of 59'ers members wanting to attend Gary Olson's presentation at NW College in Powell that occurred the same night as the November meeting.

Christmas party, NO gifts Required...Sunset House for dinner Thursday the 3rd of December 6 PM.

I sent out sheets for volunteers for 2016, I need some folks to sign up for meeting refreshments and door prizes
At this point assume we will continue to use the Courthouse conference room for meetings on the 4th Thursdays of the month.
Next meeting therefor is January 22, 2016, Mark your new calendar.



Top, club members and guests arrive at Track Site entrance

2nd photo: 59'ers at Track Site observation platform

3rd photo: three toe track in mud rock at Track Site



Club Members arrive at collecting site

Bottom, Fossil shell in mud rock



Rex Young Rock Club Activities May though October 2015

By Joyce Trowbridge

Greetings from our club! Hope all you rockhounds had a good year. Our club is busy with the planning of the next state rock show. We have also had several new members join our club this year.

In May, we met at the Western History Center with fourteen members and two guests. We were informed about the Sunrise Mine tour that was coming up soon. It is a Paleo-Indian ochre mine located in southeastern Wyoming near the Historic Sunrise Iron Mine. The site is attracting world wide attention, and, to point out, there is only one site in the Americas to rival it. This similar site is found on the west coast of Chile. The Western History Center personnel will be the guides for this. Marj Zavorka served the refreshments and meeting was adjourned. Then some of the members went to the Western History Center's basement to identify specimens.

The June meeting, there were ten members present. Kim Neilson gave us a report on the rock swap that was held during holiday weekend at the zoo in Scottsbluff, NE. Kim and Sherman had the program. They brought in several samples of petrified wood.

July was our picnic at the home of Roy and Joyce Trowbridge in Lingle. We had a smaller turnout than usual, but it still was a great evening of good food and visiting.

In August, we were thinking about a theme for the state show. The door prize drawing winners were Norm Vogel and Gary Landen. The program and treats were by Chuck Kilgore. He served us watermelon then showed us his collection of old board games and marbles.

Our September meeting, we had thirteen members. We are starting to contact dealers for our show and we will need to elect a show chairman. Sherman Lenhart and Paul Tyler won the door prizes. Joyce Trowbridge brought the treats. The program was for everyone to bring your best summer finds.

In October we had a good turnout for our carry in meal. Norm Vogel volunteered to be one of the show chairmen. Marci and Marj won the door prizes. There was no program.

Cheyenne Mineral & Gem Society

Editor's Note: I recently received an Email from Bob King stating that he was resigning as President of the Cheyenne club.

The club has named Carla Keating

Head of the President search committee .

Just recently, the Club had changed its meetings location to the Laramie County Community Campus Health Science Building, Room 309.

Meeting times and dates will continue to be as in the past.

More information will be available in the February Jade State News.

Brad's Bench Tips for December

Included below are a couple Jewelry Bench Tips for use in your club's newsletter next month.

FOREDOM STAND

A quick and easy way to suspend a flex shaft over your jewelry bench is to use some steel pipe components from your local hardware store. It attaches with a couple screws and only costs about \$10. See illustrations at bottom

I use 1/2 inch galvanized pipe and fittings. To build a stand that attaches to the top of your bench, all you'll need is a flange and a thirty inch length of the pipe. If you prefer a stand that attaches to the side of your bench, you'll need a little longer pipe, three foot, a flange, and a 90 degree "street ell".

Finally, make a hook that goes into the top of the pipe to hang the motor from. You can use heavy coat hanger wire or 1/8 steel rod from the hardware store.

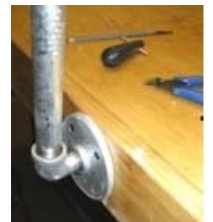
BROKEN DRILLS

Have you ever broken a drill bit off in a hole? Sometimes you can grab it with pliers, but other times the steel piece is below the surface in the hole. If this happens, a quick fix is to dissolve the steel in a solution of alum or fresh pickle. The solution will not affect your silver or gold piece.

Alum is typically available from a food store. It's used to preserve some foods. Use about a tablespoon per cup of warm water. Submerge your piece so that the partially drilled hole is facing up to let the bubbles float free and not block the hole.

"Bench Tips for Jewelry Making" and "Broom Casting for Creative Jewelry" are available on Amazon

Right and left, various positions for mounting the Foredom Stand.



WYOMING STATE MINERAL AND GEM SOCIETY, INC.

2015 CLUB DIRECTORY

Information subject to change; updates will be posted upon notice
Please contact the Editor with any changes at: jsn@wsmgs.org

Club directories for Riverton and Shoshone Clubs are located on Page 14

Cheyenne Mineral & Gem Society:

Meet Sept-May 2nd Wednesday-7:00pm Laramie County Community College Campus Health Science Building, Room 309 Cheyenne 82007

*124 Members (13 Life/Honorary)

Club Mail: Cheyenne Mineral and Gem Society-P.O. Box 21412-Cheyenne, WY 82001

Club E-mail: cheyennemgs@wsmgs.org

Club Contacts: Bob King

| | |
|--|----------------|
| President-Bob King | (307-632-2702) |
| Vice President-Paul Gregg | (307-778-7868) |
| Treasurer- Jan Shively | (307-369-1565) |
| Secretary-NA | |
| JSN-NA | |
| Historian-NA | |
| Head of President search committee—Carla Keating | |

Cody Fifty-Niners Rock Club:

Meet 4th Thursday-7:00p.m.-Park County Court-house-Cody

*71 Members (3-Honorary/Life)

Club Mail: Cody 59ers Rock Club-P.O. Box 1251-Cody, WY 82414

Club Email: cody59ers@wsmgs.org

Club Contacts: Roger Lyons -Douglas Sunderland- Stan Strike

| | |
|-------------------------------|----------------|
| President-Roger Lyons | (307-272-9985) |
| Vice President-Rhonda Knapp | (307-587-9294) |
| Treasurer- Douglas Sutherland | (307-587-6034) |
| Secretary- Joy Lyons | (307-587-2518) |
| JSN-Joy Lyons | (307-587-2518) |
| Historian-Jackie Platt | (unlisted #) |

Natrona County Rockhounds:

Meet 1st Thursday-7:00pm-5211 Rambler-Mills, WY (Clubhouse)

*76 Members (7 Honorary/Life)

Club Mail: Natrona County Rockhounds-P.O. Box 123-Mills WY 82644

Club E-mail: natronarockhounds@wsmgs.org

Club Contacts: Jennifer Flowers –Tom Cantania – Phyllis Miller

| | |
|------------------------------|----------------|
| President-George Tillman | (970-405-5502) |
| Vice President- Tom Cantania | (307-258-4884) |
| Treasurer- Jennifer Flowers | (307-277-7175) |
| Secretary- Phyllis Miller | (307-259-7852) |
| JSN-NA | |
| Historian- NA | |

Rex Young Rock Club:

Meet 2nd Wednesday-7:00pm-Senior Center-216 E 19th-Torrington

*20 Members

Club Mail: Joyce Trowbridge-112 East 3rd-Lingle, WY 82223

Club Email: rexyoungrockclub@wsmgs.org

Club Contacts: Joyce Trowbridge – Kim Nielsen – Helen Vogel

| | |
|--------------------------------|-----------------|
| President-Kim Nielsen | (308-632-2385) |
| Vice President-Sherman Lenhart | (307-632-2385) |
| Treasurer-Leroy Meininger | (308- 575-0749) |
| Secretary-Joyce Trowbridge | (307-837-2726) |
| JSN-Joyce Trowbridge | (307-837-2726) |
| Historian-Joyce Trowbridge | (307-837-2726) |



Merry Christmas and Happy Holidays to Everybody



Riverton Mineral and Gem Society:

Meets Sept.-May- 2nd Monday-7:00pm-303 E. Lincoln, Riverton

*196 Members (13-Honorary/Life, 5 Junior)

Club Mail: Riverton Mineral & Gem Society-P.O. Box 1904-Riverton, WY 82501

Club E-mail:
rivertonmgs@wsmsg.org

Club Contacts: Linda Richendifer - Jim McGarvey

- | | |
|-----------------------------|----------------|
| President-Linda Richendifer | (307-856-1532) |
| Vice President-Alice Gustin | (307-856-3699) |
| Treasurer-Jim McGarvey | (307-856-6188) |
| Secretary-Kim Brown | (859-227-7826) |
| JSN- Kim Brown | (859-227-7826) |

Shoshone Rock Club:

Meet 2nd Tuesday-7:30pm-Garland Church-Garland *59 Members (4 Honorary/Life)

Club Mail: Shoshone Rock Club -P.O. Box 256-Powell, WY 82435

Club E-mail:
shoshonerockclub@wsmsg.org

Club Contacts: Linna Beebe - Linda Thomas

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|----------------------------|----------------|
| President-Gary Olson | (307-254-2381) |
| Vice President- Mary Vogel | (307-250-0259) |
| Treasurer-Linda Thomas | (307-754-4396) |
| Secretary- Linna Beebe | (307-899-2518) |
| JSN- Linna Beebe | (307-899-2518) |
| Historian- Linna Beebe | (307-899-2518) |

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