

# Jade State News

Wyoming State Mineral & Gem Society, Inc.

2132 Gail Lane, Cody Wyoming 82414

Volume 2018, Issue 2



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The WSMGS conducts meetings quarterly  
and as special events require

## This Ancient Climate Catastrophe Is Our Best Clue About Earth's Future

The Washington Post by Sarah Kaplan-March 27, 2018  
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future:%3Futm\_term=.2cd344825db4

Scott Wing had spent more than a decade in the badlands of Wyoming's Bighorn Basin, most of it thirsty, sunburned, and down on his hands and knees, digging endlessly through the dirt. But he had never found anything like the fossil he now held in his hand — an exquisitely preserved leaf embossed on beige rock. Wing let out a jubilant laugh as he uncovered a second fossil and then a third. Each leaf was different from the others. Each was entirely new to him. And then he started to cry. This was exactly what he'd been searching for. When these strange fossils formed 56 million years ago, the planet was warming faster and more dramatically than at any point in its history — except the present.

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## This Ancient Climate Catastrophe Is Our Best Clue About Earth's Future

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Scott Wing examines a fossil in the Bighorn Basin, WY where scientists seek evidence of 56-million-year-old climate catastrophe. (Laura Soul)

Recounting the moment recently in his office at the Smithsonian's National Museum of Natural History, the field assistant with whom he'd been hiking. The young man looked understandably nervous that his supervisor was shedding tears over a handful of rocks. "I said, 'You just have to realize, I've been looking for this ... since you were a kid. I'm unreasonably happy right now, but I'm not crazy,'" Wing chuckled. "So, that was the first really good set of plant fossils from the PETM. It was definitely a moment that I won't forget."

The PETM is the Paleocene Eocene Thermal Maximum — an ungainly name for the time that's considered one of Earth's best analogues to this era of modern, human-caused global warming. In a matter of a few thousand years, huge amounts of carbon were injected into the atmosphere, causing global temperatures to rise between 5 and 8 degrees Celsius. The rapid climate change disrupted weather, transformed landscapes, acidified oceans and trig-

gered extinctions. It took more than 150,000 years for the world to recover.

If history is allowed to repeat itself, the consequences for modern life could be similarly long-lasting — which is why Wing is so determined to understand this ancient climate catastrophe. "To me, it doesn't lead me to be fearful," Wing said. "It leads me to feel responsible. It leads me to feel that we need to be more informed."

The first major evidence for the PETM was uncovered in the early 1990s by scientists looking at the transition from the Paleocene, the epoch after the extinction of the dinosaurs, to the Eocene, when modern mammal orders first emerged.

There was something strange about the thin band of sediment that represented the boundary between these two epochs: its ratio of carbon isotopes — different forms of the same element — was skewed. Further research revealed that something between 4 trillion and 7 trillion tons of carbon — the rough

## This Ancient Climate Catastrophe Is Our Best Clue About Earth's Future continued from page 2

equivalent of the planet's entire current reserve of fossil fuels — had flooded the atmosphere in this period. It came from the decomposed remains of ancient algae and plants, so it contained a larger amount of carbon 12 — the isotope that is preferred for photosynthesis. This “spike” in carbon 12 served as a marker of the PETM and allowed researchers to start tracking the effects of this sudden climate shift in rocks and fossils around the world.

Chalk deposits at the bottom of the ocean began to dissolve as carbon dioxide made seawater more acidic. Fossils of tiny, deep sea-dwelling creatures showed evidence of an oxygen shortage — a sign that the water was getting warmer. Everywhere in the ocean, creatures adapted to the changed environment, or else they died out.

On land, mammals got smaller and smaller. Ancient ancestors of horses, tiny to begin with, shrunk 30 percent to the size of house cats. Abigail Carroll, a paleoclimatologist at the University of New Hampshire, said this was probably an adaptation to the warmer weather: Smaller bodies are easier to keep cool.

Weather also got wilder. Geologists have uncovered huge rocks that were carried long distances by intense floods — something that happens when dry spells are followed by extreme rains.

And then there are the plants in Wing's collection at the National Museum of Natural History. Before the PETM, fossils suggest, Wyoming looked more like Florida — a lush, subtropical forest shaded by stately sycamores, silvery birches and waving palm trees.

But as the world warmed, the Bighorn Basin transformed. The fossils Wing finds from this period belong to plants that typically grow in hot, arid places even farther south — spindly bean plants and relatives of poinsettia and sumac. These plants must have migrated north when the weather changed, following their preferred environment to ever higher latitudes.

A swarm of ravenous herbivores apparently followed. Many of Wing's fossils are perforated with bite marks left behind by insects more numerous and diverse than the ones that preceded them.

The source of all this mayhem remains uncertain. Some have suggested the flood of carbon that set off the PETM came from volcanic eruptions or even a comet impact. But the most popular theory suggests that reservoirs of solid methane buried in seafloor sediments were released when the ocean's temperature and chemistry changed. Methane is a potent greenhouse gas, short-lived but harder-hitting than carbon dioxide. Once it set global warming in motion, the rising temperatures may have triggered the release of even more methane and unlocked additional carbon sources — wildfires, shifting ocean currents, soil microbes that breathe out greenhouse gases — in a chain reaction that changed the planet.

To scientists today, many of the phenomena observed during the PETM will feel familiar — so familiar “it's almost eerie,” Wing said. Humans burning fossil fuels have produced the same kind of carbon isotope spike researchers find in 55-million-year-old rocks. The ocean has become about 30 percent more acidic and it's losing oxygen — changes that are already triggering die-offs. The world has witnessed dramatic weather extremes — deadly heat waves, severe storms, devastating droughts. In response to these shifts, plants and animals are showing up in new places at unusual times. There's even evidence that some species, such as birds called red knots, are getting smaller as a result of the warmer climate.

Still, the past is an imperfect predictor of what might happen as the modern world continues to warm. For one thing, Earth on the eve of the PETM was already much hotter than it is today. With the poles unfrozen and the sea levels high, ancient creatures didn't have to worry about the effects of melting ice, as we do today.

And the pace at which we are changing the cli-



## This Ancient Climate Catastrophe Is Our Best Clue About Earth's Future

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A well-preserved *Populus wyomingiana*, an extinct species related to cottonwood that's found during the PETM. Smithsonian Institution researcher Rich Barclay watches in the background. (Scott Wing)

mate outstrips anything in the geologic record. The carbon surge that set off the PETM unfolded over the course of as long as 5,000 years. At our current rate, humans will produce a comparable surge in a matter of a few centuries.

"In all the major ways it's more perilous now than it would have been then," Wing said. But for scientists trying to predict our future peril, the PETM is an invaluable reference. Jeff Kiehl, a senior scientist at the National Center for Atmospheric Research, uses research by Wing and others to test models of the interplay between carbon and climate. "We don't have data for the future but we do have data from the past," Kiehl said. "This is where Scott's work ... has played a critical role."

A well-preserved *Populus wyomingiana*, an extinct species related to cottonwood that's found during the PETM. Smithsonian Institution researcher Rich Barclay watches in the background. (Scott Wing)

Data from the PETM and other times of global warming can be used to answer the questions that haunt modern climate scientists: How much will the Earth warm if atmospheric carbon doubles? What will happen to the world's water as a result? How long will it take for things to return to normal?

This week, Wing and his colleagues at the Smithsonian have gathered 17 experts for a symposium on ancient climate. Over the course of two days, they will try to reconstruct a timeline of Earth's temperature and atmospheric carbon levels since complex life began roughly a half-billion years ago.

"Science has finally gotten us to a point where we have some idea of what the consequences are of the things that we do," Wing said. "Now the question is, can we use that knowledge in something that starts to approach a wise way?"



## WSMGS BOARD INFORMATION & UPDATES

### WSMGS ELECTRONIC BOARD MEETING APRIL 2018

#### I. Electronic meeting instructions to board members:

As a WSMGS Board Member, I would like you to read this Electronic Meeting email and VOTE on all Actions Items by selecting "Reply All" after typing name and indicating a "Agree or Disagree" vote for each numbered Action Item. Deadline for your responses by "Reply All" email will be Friday, May 4th, 2018.

If you have questions about any item please call or text me at 307-260-6442 or [pres@wsmsg.org](mailto:pres@wsmsg.org). Board members are encouraged to submit old or new business items that have not been included in this meeting and a special attachment will be sent out for the entire WSMGS Board's consideration.

#### II. Secretary's Report by Carla Tillman:

A. Electronic WSMGS Board Meeting Minutes are as printed in the Jade State News. Which is available online: [wsmsg.org](http://wsmsg.org) under the heading Newsletter.

#### III. Treasurer's Report by Stan Strike:

Beginning Balance - February 1, 2018 = \$2322.11

##### Income:

2-22-18	WSMGS Dues Paid	\$41.00
	(Riverton – additional dues paid)	

##### Expenses:

2-17-18	1130	Jennifer Flowers – February 2018 JSN	(\$75.00)
2-20-18	1130	8th Street@The Ivy-webmaster Get Well Gift	(\$50.00)
		Total Expenses =	(\$125.00)

Ending Balance – March 31, 2018 = \$2,238.11

#### IV. President's report by Jim Gray

A. I have been in contract with a group of guys in Gillette about become members of the WSMGS, just sent information about the yearly dues for WSMGS and for the RMFMS.

B. I working with a group of rockhounds in Douglas also thinking about become members in the WSMGS and the FMFMS.

C. I had a meeting with a group in Kemmerer, Monday evening about becoming members of the WSMGS and the RMFMS. They are going to have another meeting to elect officers and name there club.

D. I've been very busy working on the upcoming WSMGS rock show in Big Piney, Marbleton June 15,16,17 2018.

E. I've been looking for ideas to get the younger people interested in Rockhounding, so any ideas would be great.

F. All clubs need to be sure and report meeting minutes, pictures etc. to our Historian.

G. I would like to see if all the clubs would like to donate a few hundred dollars to the WSMGS to purchase a larger trailer, the trailer is getting a little to small, we could purchase a bigger unit and possible trade in the smaller one. Please give me some feed back.

H. The WSMGS show in Big Piney, Marbleton is full there is 19 vendors.

I. Sublette County Rockhounds will be installing banners in Farson, Jackson, Pinedale, Sand Draw, Kemmerer, and both ends Big Piney, Marbleton, Daniel Junction. The Fairgrounds has a large electronic sign that will advertise the show. Posting flyers everywhere and emailing them to local clubs to post as will.

J. They have schedules 2 field trips, one to the blue forest and the other will be a local trip for Coral and Stromatolites, possible pet wood.

K. Pot luck dinner planned for June 14 at 6pm.

## WSMGS BOARD INFORMATION & UPDATES *continued*

L. Set up starting at 12:00 on June 14.

M. WSMGS meeting 7:00 pm at Fairgrounds.

N. Have lots of demonstrators coming, "Spike the Kemmerer fish man, Knapper, Fluorescent mineral display, Show cases, Wyoming Geological Survey, (Wayne Sutherland), Silent auction, grab bags made out of old socks, kids activities, "Paint your rock table", Wheel of fortune.

V. Vice Presidents Report by Linda Richendifer:

### WSMGS 2017-18 MEMBERSHIP REPORT (10-31-17)

CLUB LOCATION:	DUES PAYING	JUNIOR	LIFE / HONORARY	TOTAL
CASPER	35	1	9	45
CHEYENNE	90	-	13	103
CODY	78	4	4	86
MARBLETON	114	5	5	124
POWELL	45	-	4	49
RIVERTON	156	-	15	171
TORRINGTON	20	-	-	20
<hr/>				
TOTALS	538	10	50	598

VI. Jade State Newsletter by Jennifer Flowers:

REMINDER: Club News due dates: February 1st, May 1st, August 1st, and November 1st.

Please include photos to accompany your club activities updates.

VII. WSMGS Website by Marlene Sibley:

The wsmgs.org website needs more photos to create more color. Please send to: [webmaster@wsmgs.org](mailto:webmaster@wsmgs.org)

VIII. Old Business:

With the approval of Action Item #4, concluding the October 2016 Electronic Board Meeting, the WSMGS Board will continue to encourage the collection of club documents and facilitate the compliance with the legal requirements to protect all WSMGS members.

IX. New Business:

Action Item: #1 – Approval for WSMGS board members travel expenses to attend WSMGS Annual Meeting. \$150.00 if overnight and \$50.00 if only travel expenses.

Action Item: #2 – Approval for RMFMS WY State Director to attend RMFMS Convention – actual gasoline round trip costs + 2-3 nights lodging. 2017 costs were \$383.20.

( The WY Director represents local clubs at the RMFMS Conventions with their Proxy votes unless the clubs choose to attend and represent themselves.)

Action Item: #3. Approval of annual WY State Fair 4-H Geology Award Winners \$50.00

Summary of Voting:

Action Item #1, #2, and #3 were approved by the WSMGS Board

X. Meeting adjourned



ADVERTISING FOR THE WSMGS MINERAL & GEM SHOW  
By the Sublette County Rock Hounds

How are you advertising for the 2018 WSMGS Mineral and Gem Show?

1. Handing out flyers at the rock shows in Utah, MT, ID, AZ.
2. Sent flyers to rock clubs in Utah, Idaho, Colorado, Montana, Nebraska, and Wyoming. WY.
3. We will send out flyers again first week of June to all the area clubs. We have already handed out over 2000 flyers and have just had another 500 8x11 printed and another 500 4x6 printed.
4. Been putting the flyers on Facebook as well.
5. Advertising on the local radio station during 2 weeks prior to show.
6. We are going to run an ad in the Sublette Trader, Sublette County Chamber of Commerce website, Rock and Gem magazine, and the Jade State Newsletter.



**Sublette County Rock Hounds**

*present the*

*Wyoming State Mineral and Gem Society Show*



**ROCK THE WYOMING RANGE  
GEM & MINERAL SHOW**

Show Theme: Petrified Woods of Wyoming

**Friday, June 15, 2018 9am-5pm**

**Saturday, June 16, 9am- 5pm**

**Sunday, June 17, 9am-4pm**

Sublette County Fairgrounds Event Center, Marbleton, Wyoming

**Food Concessions by The Bench Grill**

Door Prizes Raffle Fluorescent Mineral Display Exhibits Field Trips  
Knapping Silent Auctions Wyoming Geological Survey Kids' Activities  
Wheel of Fortune 'Paint Your Rock' table "Spike" the animated fossil  
Rough Rock Slabs Opals Petrified Wood Jade Jewelry

**Admission \$2, children under 12 free**

## Wyoming RMFMS State Show June 14-17

### Sublette CO. Fairgrounds - Event Center - Marbleton, WY

### Junction of highway 189 & 351

SETUP:	Thursday JUNE 14TH 10 am to-----?	
DINNER:	(DEALERS, DELEGATES, AND WORKERS)	JUNE 14th 6:00 P.M.
WSMGS ANNUAL MEETING:	At Fair grounds	JUNE 14TH 7:00 P.M.
SHOW:	FRIDAY, JUNE 15TH	9:00 A.M.-- 5:00 P.M.
	SATURDAY, JUNE 16TH	9:00 A.M.—5:00 P.M.
	SUNDAY, JUNE 17th	9:00 A.M. – 4:00 P.M.

LODGING INFORMATION: Be sure and tell them that you are coming for the Gem & Mineral show.

Marbleton :	Marbleton Inn 307-276-5231
	Country Chalet 307-276-3391,
Big Piney:	Big Piney Motel 480-343-1234,

La Barge (20 miles south): Red Cliff Motel 307-386-9269  
Wyoming Inn 307-386-2654.

Pinedale (35 miles north). Pinedale Baymout Inn and Suites 307-367-8300  
Best Western Inn, 307-367-6869  
Boulder Motel 307-527-5480  
Sundance Motel 307-367-4789  
The Lodge at Pinedale 307-367-8800  
Log Cabin Motel 307-367-4579  
Pinedale Cozy Cabins 307-367-3401  
Sitzman Motel 307-273-9246  
Wagon Wheel Motel 307-367-2871  
Hampton Inn 307-367-2221.

Kemmerer (60 miles south).  
Sublette County Fairgrounds has full hookup call for reservations 307-276-5373  
Also can dry camp for free.  
Several other camping areas.

Jim Gray  
Cell (307)260-6442  
pres@wsmsg.org OR jimgray@wyoming.com





# Rare Mammal Fossil Discovered in Wyoming

A fossil discovered near Kemmerer, Wyoming, may be the first of its kind and is the largest mammal found to date in the 50-million-year-old Green River Formation. The discovery of this ancient tapiromorph may support a North American origin of tapirs that in modern times typically inhabit jungles and forests in South and Central America and Southeastern Asia.

Due to its potential significance, the specimen is being prepared for scientific purposes. "Properly preparing the specimen with special attention to keeping soft tissue fossilization intact is important for future research," says Andrea Loveland, geologist at the Wyoming State Geological Survey (WSGS).

Rick Hebdon, owner of Warfield Fossil Quarries, collected the fossil in summer 2016 from the Fossil Butte Member of the Green River Formation. The specimen was found in several pieces and damaged by weathering and roots. The majority of the animal's teeth are missing, and its skull is damaged.

The fossil was first identified as *Heptodon calciculus* by the late Dr. Gregg Gunnell, paleontologist and former director of the Duke (University) Lemur Center. Gunnell's initial identification comes with a few caveats, as some characteristics of the specimen deviate from what is typical of a standard *Heptodon*. The specimen may be an early occurrence of *Hyrachyus* or *Helalates*, both tapiromorphs that more closely align with rhinoceroses and true tapirs, respectively. The specimen may also be a new genus of ceratomorph or tapiroid.

"My understanding is that this is definitely the first occurrence of this fossil in the Green River Formation and, depending on which of the three identifications listed above is correct, could be the first of its kind ever. More work on this specimen is needed after it has been prepared," says Dr. Mark Clementz of the University of Wyoming Department of Geology and Geophysics.

Researcher Mike Eklund will prepare the specimen under a microscope with time-lapse photography. Still photography under different angles of

visible light and ultraviolet light will help detect detail and soft tissue fossilization.

Prior to starting the preparation process, the rock slabs were CT scanned and X-rayed at Iverson Memorial Hospital in Laramie, Wyoming, so that geologists could view and identify fossilized material encased in the rock. Stitches Acute Care Center, also in Laramie, conducted X-rays on a fourth large rock slab and several smaller pieces.

The specimen was found on a state-leased quarry and surrendered to state custody due to its distinction as a rare specimen per the Office of State Lands and Investments fossil permit regulations. After the preparation process is complete, the fossil will be housed at the WSGS and available for scientific research and display at museums. The WSGS serves as a repository for state-owned fossils.

"We are following the preparation of the fossil with great interest," says WSGS Director, Dr. Erin Campbell. "This fossil has potential to be a significant scientific find, and we applaud Mr. Hebdon for bringing this state treasure to our attention."

The fossil is being prepared at the recommendation of the Fossil Advisory Board, which advises the State Geologist/WSGS Director on specimens turned over to the State of Wyoming. Members of the Fossil Advisory Board are Seth Wittke and Andrea Loveland (WSGS), Mark Clementz and Laura Vietti (University of Wyoming Department of Geology and Geophysics), J.P. Cavigelli (Tate Geological Museum), and Kelli Trujillo (Uinta Paleo).

"The discovery of the Green River Formation fossil is exciting for the state of Wyoming," says Vietti. "Not only is it an important fossil discovery for science, it also represents a unique collaboration between private collectors, Wyoming agencies, and the University of Wyoming."

The public can learn more about the fossil and follow progress of its preparation on the WSGS' website. Also, look for weekly updates on the agency's Facebook, Twitter, and Instagram pages.

Adapted Source: Wyoming State Geological Survey Press Release-April 27, 2018



## A Guide to Wyoming's Cultural Geology

**Origin of Landscape: A Guide to Wyoming's Cultural Geology** is a Wyoming State Geological Survey website that allows "travelers" to tour and virtually explore the connections between Wyoming's geological phenomena, landscapes, and cultural beginnings: <http://www.wsgs.wyo.gov/public-info/cultural-geology>

This website includes an interactive map, feature stories, photos, and video vignettes on each site represented on the tour. A Historical Timeline and a Museum List are also included on this website, dating and featuring events that extend into Wyoming's geological and historical past to the present. From the Oregon Trail to Paleo-Indian red ochre mining sites, Wyoming has many locations where culture & geology merge and stories unfold.

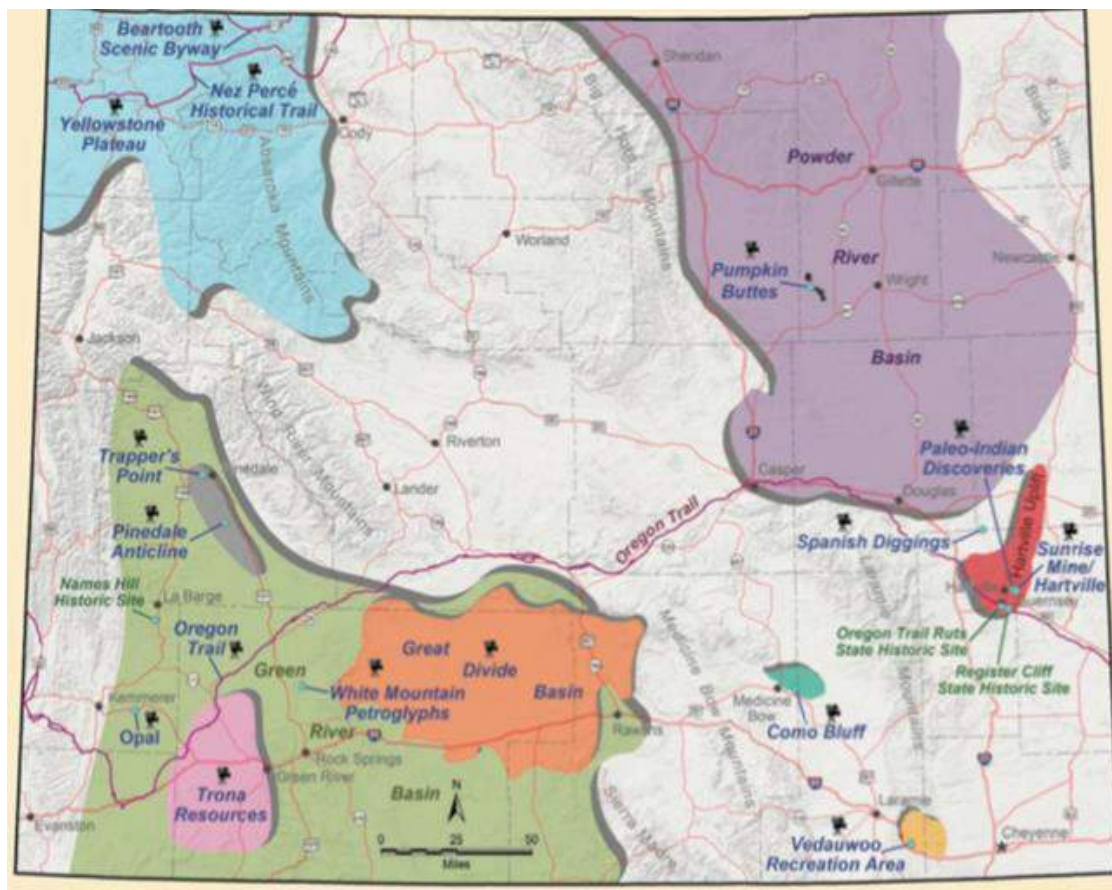
The following Wyoming geological and historical sites can be visited as you "travel" through this website. Perhaps

it will inspire you to travel the highways and byways of Wyoming to visit some of these sites as a vacation! Scan the QR codes with a smartphone to access the video vignettes featured on the website map and listed below.

**Trapper's Point**  
**White Mountain Petroglyphs**  
**Beartooth Scenic Byway**  
**Flight of the Nez Percé**  
**Sunrise Mine**  
**Wars"**  
**Vedauwoo Recreation Area**

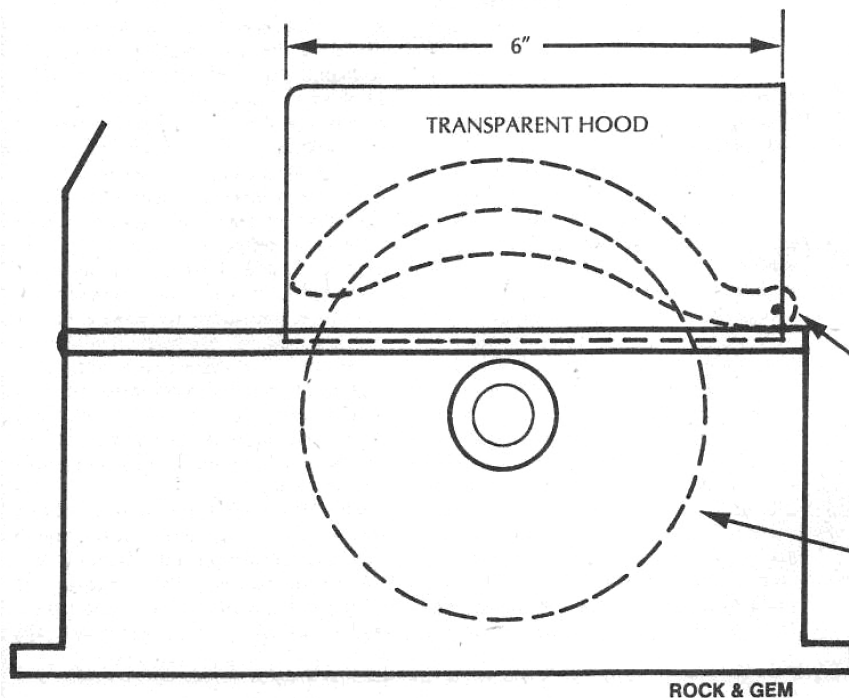
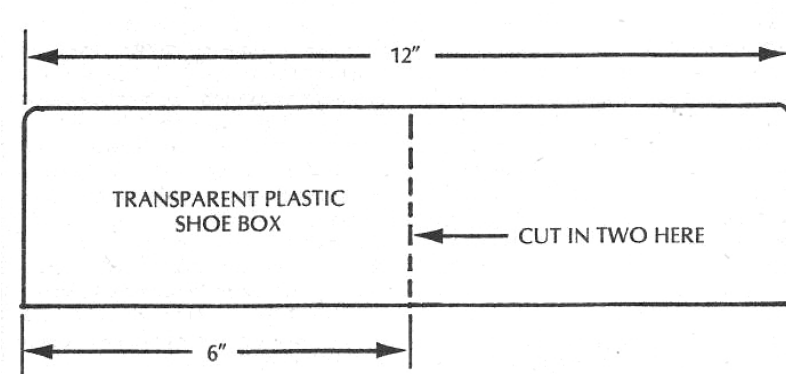
**Pinedale Anticline**  
**Trona Resources**  
**American Indians of Yellowstone**  
**Pumpkin Buttes and Uranium**  
**Spanish" Diggings**

**Oregon/California Trails**  
**Opal, Wyoming**  
**Great Divide Basin**  
**Paleo-Indian Discoveries**  
**Como Bluff, the "Bone**



# A PLASTIC HOOD **FOR YOUR TRIM SAW**

**WHAT WILL KEEP DOWN THE SPRAY, AND  
IS SHAPED LIKE A PLASTIC SHOEBOX?**



by PERRY W. TROUT

If you are using the average trim saw (like a six-inch Rock Rascal) you'll find that blade guard deflects most of the surplus lubricant, but does not contain or control all of the oil mist and chips that fly. And, in turn, a considerable amount is sprayed on the operator and surrounding area.


Most of this unwanted spray can be contained by the use of a cover made from a transparent plastic shoe box. These are available at all variety or discount stores.

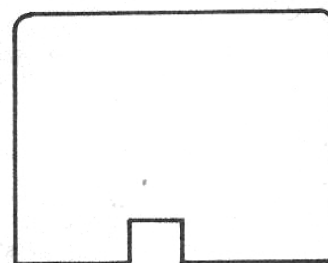
The box has a 12-inch length and six-inch width. This is cut in two, resulting in a hood or cover six inches long by six inches wide. This is the exact measurement to fit inside saw table rim. Only one alteration is needed. A recess must be cut in lower back edge to straddle hinge of saw guard. This is cut with hacksaw approximately in middle of lower edge of cover rear. A cut  $\frac{3}{4}$ -inch by  $\frac{3}{4}$ -inch will suffice, or just high enough to clear the hinge. This results in a snug fit for the cover, and its neatness makes it appear to be an integral part of the saw.

This six-inch length of cover leaves ample working room but, if more is desired, this can be accomplished by recessing sides of front edge another inch or two.

The pre-cut slot for guard hinge is made by sawing the sides of slot with a hacksaw, and then breaking off the tab with pliers.

The shoe box is cut in half with tinsnips up the sides, then folding to break across middle of box top.

Without the hood, a considerable amount of spray and chips collect on the surrounding area, and also the operator's hands, but with the see-through hood a lot of this is contained, and makes trimming easier and a lot less distasteful. 



RECESS FOR GUARD HINGE  
APPROXIMATELY  $\frac{3}{4}$ " x  $\frac{3}{4}$ "

ROCK RASCAL 6-INCH TRIM SAW

October, 1984





## Club Reports

### Cheyenne Mineral & Gem Society

#### February Meeting Notes

On February 14, 2018, the Annual Silent Auction for club members was held at the IBEW Union Bldg, 810 Fremont Ave. from 6:30 to 9 pm. We had a great time!!! There were 11 sellers, 28 buyers signed up and perfect prices. Not everything sold out but some buyers only came to look and ended up buying, others came to buy & bought more, others came to visit.

A huge Thank You to the people who helped me get setup in time: Donna Arnold, Jan Shively, Gina Holzum & Paul Gregg. Thank you to Donna for bringing the liquid refreshments and Jan for the Valentine's Day cupcakes. Thank you to Gina for helping at the cash table and buyer boxes. There was also a family that joined that night and some members back for the first time in a while. It was lots of fun, lots of laughs and some great buys were made.

#### March Meeting Notes:

##### Tucson and Quartzsite Presentation

Bruce Keating presented the group with an overview of the Tucson and Quartzsite, AZ gem and mineral shows. Tucson is home to the largest gem, mineral and fossil show in the US. In addition to the largest, the Tucson Gem, Mineral and Fossil Showcase, there are dozens of gem shows throughout the city from mid January through the third week in February. At the same time, there are bead and jewelry classes and mining tours available. There are buses that run between shows and some of the hotels and parking garages. Tucson puts out a publication that shows maps of the city, show locations, the bus schedule, listings of the vendors for certain shows and describes whether a vendors license is required to purchase at the various show. (Most are retail shows, but there are several wholesale only shows.

Quartzsite, AZ has its own gem, mineral and fossil shows and swap meets which attracts over a million visitors each year with it's 2000+ vendors. Quartzsite is a small town, located at the intersec-

tion of I-10 and U.S. Route 95 with a population of about 3500 people. The lodging is very limited in Quartzsite and most folks bring their campers and either stay at the RV parks or stay on BLM land. There are a few more hotels in Blythe, CA which is just over 20 miles from Quartzsite. The shows and swap meets begin early in January. Many of the Tucson vendors start in Quartzsite and later in the month move to Tucson.

Due to the number of shows and the size of the shows, Bruce recommends doing your research and planning which shows you are most interested. Some shows are geared for wholesale, some more for beaders and crafters, others for those looking for minerals and fossils. The Miners Co-Op mainly has rough rock, slabs and lapidary supplies. Some of the shows will take a full day to go through and others will take a couple of hours. Better deals seem to be in Quartzsite and at both shows either prior to the show starting or when the show is winding down.

The Quartzsite Gem and Mineral Club has a fabulous lapidary facility. They offer lapidary classes, opal cutting, basket making, wire wrapping, knapping, casting, beading and much more. The membership is \$15.00 for the season (November to April) and allows you use of the facility and offers inexpensive classes. For more information their website, go to this link <http://qrgmc.org/>

#### Proposed Lapidary Classes at LCCC

Cathy Spencer talked to the group about the possibility of lapidary class at LCCC in the fall. This would be a beginners class and would teach use of the slab saw, the grinding and polishing machines, flat laps, dopping, etc. There were approximately 10 people that were interested. The proposal is before the Dean at this time and we will keep you posted on our progress.

#### Oklahoma Selenite Trip, April 2018

This article is to add more information and



## Club Reports *continued*

### Cheyenne Mineral & Gem Society *continued*



details to January's Newsletter.

Besides a long handled shovel you will need a way to carry your tools & water to the digging area, which last year was up to . mile, and your crystals back, such as a garden wagon/little red wagon. Also helpful, would be garden trowels or small scoops, bring an old piece of plywood just in case you get lucky and find a large cluster, flats for your treasures, as well as something to cush-

ion your treasures on the way home.

Water is a must, the more the better, milk jugs work the best, refill at hotel. You will need it for washing off the crystals, washing off yourself, washing off your clothes before entering your vehicle. You should wear old clothes but you don't always have to throw them away, you can bring them home, rinse them in the tub and then wash as normal. If you are staying in a hotel sometimes they will let you use their machines.

Self protection – Make sure you have a hat, long sleeve shirt, long tailed shirt for when you are bent over and exposed, bandanna & sun block. The wind blows the sand across the salt flats and against your skin which can be very painful, especially if you also get sunburned. These crystals have VERY sharp edges, so bring gloves such as garden gloves. These might not keep you from getting cut but they will help, also bring band-aids for the cuts you do get.

### Cody 59ers Rock Club Field Trip

**February 10, 2018**

Cody 59ers members took a mid-winter field trip on February 10th to Powell, Wyoming. Their first stop was at the Powell Homesteader Museum, which houses a great mineral and fossil collection. After the museum, the members had lunch at the

Wyold West Microbrewery and Pub in Powell. For some "indoor rockhounding", the group then went to Stone Age Industries. The business is owned by Linna and Bill Beebe, who are members of the Shoshone Rock Club in Powell. The last stop for the day was at the home of another Shoshone Club



Homesteader Museum-Powell

[Photos by Jim Ingram]

Stone Age Industries Rock Shop

## Club Reports *continued*

### Cody 59ers Rock Club Field Trip *continued*

member who is selling some of her personal collection of rocks and related items. The field trip helped to fend off cabin fever, as we all wait for better rockhounding weather

#### March 22, 2018

The meeting was called to order at 6:30 p.m. by President Nella Flurkey. Twenty-four members were in attendance. The meeting started with a Rockhound Trivia Contest. Members divided into 4 teams (Hearts, Clubs, Spades, Diamonds) and the contest was won by the Clubs team.

#### Bylaws Committee Report:

The committee should have their work completed in two more sessions, after which they will present the results to the club

#### Library Report:

Ian reported that the library is almost ready to start checking out books and outlined the rules for check out. He discussed plans to list library contents on Facebook and the club website.

- We still need volunteers to be delegates to the June 15 - 17 Rock Show in Marbleton.

- We also still need a volunteer to replace Stan as State Agent.

- Ian was elected Club Rockhound of the Year. New Business:

- Shea donated a box of Apache Tears for club members.

- Audrey also brought rocks from around Meeteetse.

- Stan and Roger were recognized for their efforts sorting and organizing rock club inventory this week. Roger passed around a thank-you letter from the Homesteader Museum in Powell for the club's donation during a recent visit. The museum was kind enough to let us visit during their off hours.

- Roger introduced new members from Pennsylvania summering in Cody. They are Ken and Wendy Brown Kirk.

- Stan will be attending the RMFMS show in Rapid City as an officer.

- The club picnic is set for June 28th. Details will be reported next meeting.

### Shoshone Rock Club News

#### February

Identifying minerals was the program for Shoshone Rock Club's February meeting. A well-organized and educational presentation, by Wanda Spragg and Del Barton, featured photographs, charts, specimens and an interactive display station.

Wanda and Del provided information about the growth rate of minerals, ranging from garnet, which takes hundreds of thousands of years to form, to olivine, which can grow yards in an hour. They also talked about the reasons for testing minerals and the ways in which those tests can be done.

After the talk, club members were invited to explore streak testing, hardness testing, density, acid, magnetism and smell. A chemical testing kit from the 1950s was on display.

Linna Beebe then presented an educational segment on minerals that fluoresce. She explained the difference between shortwave and longwave fluorescence. She demonstrated by illuminating samples of algae, Dryhead agate, Wyoming opal and common opal with a fluorescent light.

Members had been invited to bring their own minerals to test, and one person brought a mineral that glowed with a green color under the light.

Acting club president Linda Thomas presided over the meeting. As treasurer, she also presented the treasurer's monthly report.

The club has been invited to put a rock display at the Powell Branch of the Park County Li-

## Club Reports *continued*

### Shoshone Rock Club News *continued*

brary from the end of May through the end of July. Linda Thomas, Linna Beebe, June Rich and Linda Dandy volunteered to contributed specimens and assemble a display.

Two door prize drawings were won by Nancy Ryan and Cresta Peterson.

Linna Beebe provided refreshments.

#### March

Ian Parson of Cody gave a presentation about tumble-polishing stones during the March meeting of the Shoshone Rock Club. Ian and his wife, Dani, are members of the Cody 59ers Rock Club. Ian provided the following guidelines:

- Use a rubber-barrel (not plastic) tumbler and follow the instructions that came with it.
- Refer to the Mohs scale of hardness. The harder the stone, the better it will polish. Rocks in the tumbler should be of the same hardness.
- Fill the tumbler two-thirds full with rocks of varying sizes. Ian said his loads consist of 25 percent small rocks, and the rest are larger ones.
- Add just enough water to barely touch the top layer of stones.
- Ian starts out with a 10-day cycle for rough grit (60/90) on most stones. Use silicone carbide grit.
- Use a hose-end sprayer for getting grit out of the cracks in the stones. A colander comes in handy for rinsing the stones. Make sure to get all the grit off. DO NOT rinse the stones in a sink; the sludge will clog the pipes.
- Ian repeats those steps with 220 and 600 silicon carbide grit, then 800 grit aluminum oxide. For softer stones, he follows that with 1,000 grit as a pre-polish.
- Beginning with 220 grit and throughout the rest of the tumbling process, Ian uses ceramic media to make up 25 percent of the tumbling material. With the 800 grit, he adds plastic pellets.
- After rinsing the final grit stage, add polish, then finish with shaved Ivory soap for about two hours to burnish the stones.

- Ian and Dani offer a free course on tumble-polishing stones. His email address is parsons81@gmail.com.

Club President Gary Olson presided over the meeting. Linna Beebe read February's minutes from Linda Dandy, who was out of town. Treasurer Linda Thomas gave her report for February.

Gary was presented a \$30.00 gift certificate for Lamplighter Restaurant in recognition of his services as club president in 2017.

Elyse Lynn won the door prize of a crazy lace pendant necklace from Mary Vogel.

Gary Olson and Dorine Strom were nominated for club Rockhound of the Year; Gary received the most votes for the honor, though the tally was close.

Dorine and Elyse volunteered to serve as state delegates for the Shoshone Rock Club, and Cresta Peterson's name was brought up as well. Two delegates and two alternates are needed.

Having previously expressed an interest in the club owning some equipment for grinding and polishing stones, Gary provided information about a horizontal grinder/polisher by Ameritool Crop.

Dorine and Linna brought up the possibility of purchasing a Pixie grinder/polisher by Diamond Pacific. The club will consider the matter further at a future meeting.

#### April

The Shoshone Rock Club celebrated its 67th anniversary with a potluck dinner on Tuesday, April 10, at the Park County Fairgrounds in Powell.

About three dozen club members attended, enjoying plentiful food and good conversation. Guest speaker Curt Talbot and his wife, Varian, of Worland, joined in the meal.

Talbot, who has a doctorate degree in geology, gave an excellent program on fossils. He brought a collection of fossil specimens and explained what they were and where they came from.

## Club Reports *continued*

### Shoshone Rock Club News *continued*

The specimens ranged from dandelion, palm and insect fossils to fossilized squid (bellemnites), stingray, baculite, clam, crinoid, stingray, sea urchin, scaphite, trilobite, sea stars, shark and crocodile teeth, a crocodile head and a dinosaur track,

along with several others. The fossils came from as close the Cody and Lovell areas and Wyoming's Oregon Basin, and as far away as Madagascar.

"There are fossils everywhere you want to look in the United States," Curt said.

He encouraged everyone to keep looking, as it's likely we've been walking by fossils for years.



## 2018 WSMGS Clubs State Rockhounds of the Year Nominees

The following individuals have been nominated by their respective clubs as Club Rockhounds of the Year and by individual club members using the State Rockhound of the Year form. All of these nominated individuals are eligible to be selected as the 2018 Wyoming State Rockhound of the Year. These Club Rockhounds and the 2018 Wyoming State Rockhound of the Year will be recognized at the Wyoming State Mineral and Gem Society's Annual Meeting on June 14th (7:00p.m.) in Marbleton, WY.

Cody Fifty Niners Rock Club  
Riverton Mineral and Gem Society  
Shoshone Rock Club  
Sublette County Rock Hounds

Ian Parsons  
Ted Knowles  
Gary Olson  
Liam Glaze-Junior  
Joan Balue  
Jim and Leane Gray







Sublette County Rock Hounds

*present the*

*Wyoming State Mineral and Gem Society Show*



# ROCK THE WYOMING RANGE GEM & MINERAL SHOW

Show Theme: Petrified Woods of Wyoming

*Friday, June 15, 2018 9am-5pm*

*Saturday, June 16, 9am- 5pm*

*Sunday, June 17, 9am-4pm*

Sublette County Fairgrounds Event Center,  
Marbleton, Wyoming

**FOOD CONCESSIONS BY THE BENCH GRILL**

*Door Prizes Raffle Fluorescent Mineral Display Exhibits Field Trips  
Knapping Silent Auctions Wyoming Geological Survey Kids' Activities  
Wheel of Fortune 'Paint Your Rock' table "Spike" the animated fossil  
Rough Rock Slabs Opals Petrified Wood Jade Jewelry*

**Admission \$2, children under 12 free**

Contact: [jimgray@wyoming.com](mailto:jimgray@wyoming.com)

NCRC presents the 71st annual

# Gem & Mineral Show

July 14-15, 2018

Sat 9-5 Sun 9-4

Admission \$3  
under 12 free

Ramkota  
Hotel

800 N. Poplar  
Casper WY

**Actual  
Raffle  
Item**

**Raffle: Amethyst Cathedral, hunk of Edwards Black Jade,  
hunk of Olive Jade and much more**

**Silent Auctions: WY rocks in the ruff**

**Door Prizes: \$10 rockhound bucks**

**Demonstrations: Flint Knapping & Primitive Stone Tools**

**Lecture: by Mr Lynn Edwards, Grandson of founder of the  
Edwards Black Jade Claim, Sat & Sun**

**Contact: Mac Goss 307.439.9873 macogre13@yahoo**



# WSMGS CLUBS

Information subject to change; updates will be posted upon notice. Contact the Editor with changes at: [jsn@wsmsg.org](mailto:jsn@wsmsg.org)

## Cody Fifty-Niners Rock Club

P.O. Box 1251  
Cody WY 82414

[cody59ers@wsmsg.org](mailto:cody59ers@wsmsg.org)  
[www.Cody59ers.com](http://www.Cody59ers.com)

Meets 4th Thursday 7:00 p.m. Park  
County Courthouse, Cody

President: ..... Nella Flurkey  
Vice-President: ..... Teresa Rowan  
Treasurer: ..... Roger Lyons  
Secretary: ..... Linda Jennings  
JSN: ..... Linda Jennings  
Historian: ..... Jackie Platt



## Shoshone Rock Club

P.O. Box 256,  
Powell, WY 82435

[shoshonerockclub@wsmsg.org](mailto:shoshonerockclub@wsmsg.org)

Meets 2nd Tuesday 7:30 p.m.  
Powell Library,  
317 E. 3rd Street, Powell

President: ..... Gary Olson  
Vice-President: ..... Mary Vogel  
Treasurer: ..... Linna Thomas  
Secretary: ..... Linda Beebe  
JSN: ..... Linna Beebe  
Historian: ..... Linda Beebe  
Field Trips ..... Dorine Strom



## Cheyenne Mineral & Gem Society

P.O. Box 21412  
Cheyenne, WY 82001

[cheyennemgs@wsmsg.org](mailto:cheyennemgs@wsmsg.org)

Meets Sept. – May 2nd  
Wednesday 7:00 p.m.  
LCCC Health Science Bldg., 1400 E.  
College Dr., Room 309, Cheyenne

President: ..... Donna Arnold  
Treasurer: ..... Jan Shively

## Natrona County Rockhounds

P.O. Box 123,  
Casper, WY 82644

[natronarockhounds@wsmsg.org](mailto:natronarockhounds@wsmsg.org)

Meets 1st Monday 7:00 p.m.  
Clubhouse, 5211 Rambler, Mills

President: ..... Mac Goss  
Vice-President: ..... John Hine  
Treasurer: ..... Kenny Platte  
Secretary: ..... Mac Goss



## Rex Young Rock Club

112 East 3rd  
Lingle, WY 82223

[rexyoungrockclub@wsmsg.org](mailto:rexyoungrockclub@wsmsg.org)

Meets 2nd Wednesday 7:00 p.m.  
Senior Center  
216 E. 19th, Torrington

President: ..... Kim Nielsen  
Vice-President: ..... Sherman Lenhart  
Treasurer: ..... Leroy Meiniger  
Secretary: ..... Joyce Trowbridge  
JSN: ..... Joyce Trowbridge  
Historian: ..... Joyce Trowbridge



## Riverton Mineral & Gem Society

P.O. Box 1904,  
Riverton, WY 82501

[rivertonmgs@wsmsg.org](mailto:rivertonmgs@wsmsg.org)  
[www.RivertonMGS.com](http://www.RivertonMGS.com)

Meets Sept.–May 2nd  
Monday 7:00 p.m.  
303 E. Lincoln, Riverton

President: ..... Rod Baltes  
Vice-President: ..... Rob Currier  
Treasurer: ..... Melvin Gustin  
Secretary: ..... Kim Brown

## Sublette County Rock Hounds Club

P.O. Box 1351 Big Piney, WY 83113

[subletterockhounds@wsmsg.org](mailto:subletterockhounds@wsmsg.org)

Meets 3rd Saturday 1:00pm  
The Bench Grill,  
415 Winkleman, Marbleton, WY

President: ..... Jim Gray  
Vice-President: ..... Mike Schaffer  
Treasurer: ..... Deb Jess  
Secretary: ..... Leane Gray

