

# The CMS Tumbler

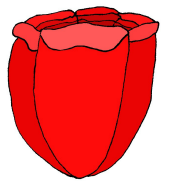
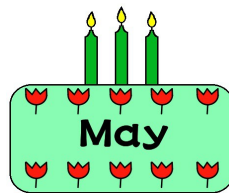
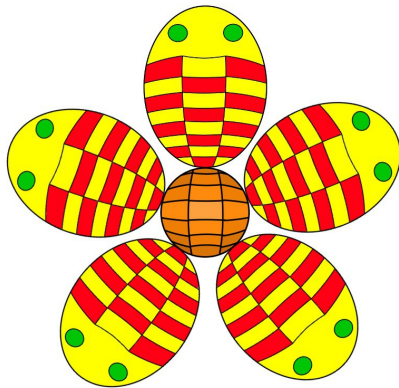
May  
2021

The monthly newsletter of the Cascade Mineralogical Society, Inc., Kent, Washington

Next Meeting:  
Canceled.

## Connect with us!

Website: <https://www.cascademineralogicalsociety.org>  
Club Facebook: <https://www.facebook.com/CasMinSoc/>  
Show Facebook: <https://www.facebook.com/cascadegemandmineralshow>  
Instagram: <https://www.instagram.com/cascadegemandmineralshow/>



This month remember  
to wish a  
Happy Birthday to  
Brian Bayer on May 2  
Julie Zander on May 2  
Hollis Diamond on May 6  
Katy Stevenson on May 7  
Dan Pederson on May 8  
Isaiah Fu on May 11  
Alex Danneman on May 12  
Patricia Morgan on May 16  
Jennifer Russell on May 16  
Angelina Dillon on May 19  
April Ness on May 20  
Lauri Miles on May 23  
Catherine Petty on May 27  
and also remember  
to wish a  
Happy Anniversary to  
Jennifer Jean & Dexter Dillon on May 3 (13 years)  
Lloyd & Charleen Shoemaker on May 4 (36 years)  
Lauren & Mr. Walker on May 5 (4 years)  
Robin Santos & Shelley Opel on May 28 (23 years)

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Tips, suggestions, recipes and experiments printed in this newsletter are the experiences and/or opinions of the individuals submitting them. We are not responsible for their authenticity, safety, or reliability. Caution and safety should always be practiced when trying out any new idea.

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Maple Valley, WA. 98038

Keith Alan Morgan, Editor  
3802 W Tapps Dr. E  
Lake Tapps, WA 98391

Postal, or Email, Exchange  
Bulletins are welcome.  
Email preferred.  
[greenrockdraggin@yahoo.com](mailto:greenrockdraggin@yahoo.com)

**2021 Elected Officers**

<i>Title</i>	<i>Name</i>	<i>Phone</i>	<i>E-mail</i>
President	Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Vice President	Merriann Fu	253-236-5593	merriannf@gmail.com
Treasurer	Charles Benedict	425-306-0465	charlesbenedict@comcast.net
Secretary	Pete Williams	425-228-5063	petewill02@gmail.com
Director	Roger Pullen	206-387-3214	None
Director	Roger Danneman	425-228-8781	roger.danneman@q.com
Director	Richard Russell	253-736-3693	richru1@yahoo.com
Past President	Bob Pattie	425-226-3154	bobpattie@comcast.net
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**2021 Show Committee Chairs**

Cascade Show	Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Cascade Show	Co-Chair		
Cascade Show	Treasurer Pete Williams	425-228-5063	petewill02@gmail.com
Cascade Show	Silent Auction Michael Blanton	425-271-8757	mblanton41@hotmail.com
Cascade Show	Raffle Donations Michael Blanton	425-271-8757	mblanton41@hotmail.com
Cascade Show	Demonstrators Richard Russell	253-736-3693	richru1@yahoo.com

**2021 Committee Chairs**

Club Historian			
Donations	Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Field Trip	Roger Danneman	425-228-8781	roger.danneman@gmail.com
Health & Welfare	Bev Williams	425-228-5063	britbev1957@outlook.com
Library	Bob Pattie	425-226-3154	bobpattie@comcast.net
Meeting Programs	Miriann Fu	253-236-5593	merriannf@gmail.com
Membership	Mark Hohn	253-332-3736	showchair@cascademineralogicalsociety.org
Newsletter - Tumbler Editor	Keith Alan Morgan	253-439-9471	greenrockdraggin@yahoo.com
Open Shop	Instructors Bob Pattie	425-226-3154	bobpattie@comcast.net
Public Relations	Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Refreshment	Angie Bayer	253-631-3840	angiemc61@msn.net
Raffle/Display	Roger Pullen	206-387-3214	None
Shop Operations	Bob Pattie	425-226-3154	bobpattie@comcast.net
Show & Tell	Michael Blanton	425-271-8757	mblanton41@hotmail.com
Social Media	Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Webmaster	Mark Hohn	253-332-3736	showchair@cascademineralogicalsociety.org

2021 CMS Dues are \$15 per year per family

Pay online, by mail, or at our meetings.

Mailing Address: Charles Benedict, 25838 W Lk Wilderness Dr SE, Maple Valley WA 98038

*You can pay your dues via credit card!! We now accept all cards through our website or at the meeting.*

You can renew your membership or enroll as a new member and pay your dues all in one shot online. You will find it under the "Membership" tab on our website. <http://www.cascademineralogicalsociety.org>

The object of the Society shall be to stimulate interest in the study of the earth sciences, lapidary arts and related subjects.

This Society is affiliated with the American Federation of Mineralogical Societies; the Northwest Federation of Mineralogical Societies; and the Washington State Mineral Council.

Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Mike Blanton in person or by telephone at (425) 271 -8757 or by computer at [mblanton41@hotmail.com](mailto:mblanton41@hotmail.com)

To get information to the Tumbler via the Internet send it to [greenrockdraggin@yahoo.com](mailto:greenrockdraggin@yahoo.com) Please put Tumbler and subject in the Subject Line. The deadline is the 20th of each month.

Sun	Mon	Tue	Wed	Thur	Fri	Sat
 <b>May Meeting Canceled</b> 						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15 First Creek Trip (CMS)
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

CMS Show Committee Meeting:....Canceled  
 CMS Board Meeting:.....Canceled  
 CMS General Meeting:.....Canceled

Lapidary Class Hours:.....By appointment, call to set a time & day for your lesson (425) 226-3154  
 Lapidary Shop Hours:.....Most Tuesdays..... 2:00 pm to 5:00 p, call ahead (425) 226-3154  
 Lapidary Shop Hours:.....3rd Saturday..... by appointment only (call a few days ahead to set time)

More Field Trip info can be found on Page 11  
 More Show info can be found on Page 12

## Mr. & Mrs. Rockhound

by KAM



The Tumbler has received One-Time Rights to publish this cartoon

## Our Club is a Member of these Federations and Associations

**AFMS:** The AFMS governs our Northwest Federation. <http://amfed.org/index.html>

The bulletins are published quarterly. You can find the news bulletins at

<http://amfed.org/news/default.htm>



**NFMS:** The Northwest Federation is our home federation. To keep up on the goings on in our own backyard. <http://northwestfederation.org/>

The link for the news bulletins is <http://northwestfederation.org/Newsletters.asp>



**ALAA:** The American Lands Access Association, Inc. represents the rockhounding interests of 325 gem & mineral clubs/societies in 47 States and the District of Columbia.

The purpose of the association is to promote and ensure the rights of amateur fossil and mineral collecting, recreational prospecting and mining. The use of public and private lands for educational and recreational purposes. They also carry the voice of all amateur collectors and hobbyists to our elected officials, government regulators and public land managers. <http://amlands.org>

The front page also has a lot of current news, rockhounding restrictions or lack of, etc. <http://amlands.org>

ALAA also publishes a quarterly newsletter. To keep up on the news and lobby efforts on our behalf check out <http://amlands.org/>



**Washington State Mineral Council:** The Washington State Mineral Council is dedicated to the location and conservation of rock and mineral sites of interest to the rockhounds of Washington state.

<https://mineralcouncil.wordpress.com/>

You can find a database of local rock and gems shows and field trips. It's a great resource if you want to plan on outing.

Also check out "Misc. News" for all the latest updates on collecting sites around Washington.

<https://mineralcouncil.wordpress.com/news-updates/>

When the weather is good they have regular monthly field trips. So take advantage of these great outdoor rockhounding adventures! The field trip details are under "Field Trips" on the left side of the site. Check out the link for additional details for time and place to meet and the field trip leader.

You can find all this information and a whole lot more about what is happening in our state at

<https://mineralcouncil.wordpress.com/>



## Rockhounding Code of Ethics

I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.

I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field-trip leaders and those in designated authority in all collecting areas.

I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule", will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

from the AFMS website

Don't let the name, or the look, fool you. Herkimer Diamonds are actually very clear double terminated quartz crystals found in Herkimer County New York.

from West Seattle Petroglyphs, 4/21



**CMS Board Meeting Minutes April 5, 2021***President Kat Koch**Treasurer Charles Benedict**Past President Bob Pattie**Director Rich Russell**Federation Mike Blanton**Guest Diana Horsfall*

Meeting called to order 7:13

The treasurer reported that March activity was getting dues from a few new members and paying for the texting capabilities to remind members of upcoming events. We have been getting about 1 new member each week. Much of the credit goes to Roger for continuing to sponsor club field trips.

With the state beginning to open up, there was a discussion on when to begin in-person meetings. The decision was to have a Zoom meeting in May and an in-person meeting in June. Kat will host the May meeting where Jim Grace will discuss the qualities he looks for in stones for faceting.

The next Gem Faire is in November. Kat will reserve a booth for our club. We plan to have the spinning wheel, and could sell Mineral Council maps while displaying some samples of material collected from some of the sites.

Kat led a discussion about having an outdoor show this year. It could be held at our normal time of the 3rd week in September or in August since the weather is better. Kat will survey the vendors for their level of interest and explore the costs involved.

Our club received a donation of some good material suitable for club auctions. It was from a Boeing employee whose father, a geologist, passed away. The Boeing employee wanted the material to go to our club since we were formerly sponsored by Boeing.

Bob reported that there were some bills in both the House and the Senate regarding access to federal lands. These are available for reading on the Amfed.org website.

Meeting adjourned at 8:10

**CMS General Meeting Minutes April 8, 2021**

by Pete Williams, 2021 Secretary

Meeting called to order at 7:12

The treasurer's report indicated there were 6 new members or renewals in March. So far in April we have had 2 new members. The only expense was paying for setting up the texting capabilities. Members can opt in to receive text messages about upcoming meetings and events. Instructions on where to opt-in are in the bulletin or on the website.

We are looking at resuming in-person meetings in June or possibly even in May. There are several clubs in the NW have not had any virtual or in-person meetings in over a year. There is still interest in exploring the possibility of having an outdoor show this year. Kat will be pursuing cost estimates and a possible location. Vendors will be surveyed to determine their interest. The show could be held at the end of August or in September.

The club received a donation of some good material from a Boeing employee whose father was a geologist, but recently passed away. He recognized we were the former Boeing club. He would like some of the material to be used for kids.

Bob reported there are several bills in the House and Senate regarding land management that could impact rockhounding. They can be viewed on the Amfed.org website.

The program was Jim Grace giving a presentation on determining the quality of faceting material.

Meeting adjourned at 8:15

**May 2021 Meeting**

There is no Zoom or in-person meeting in May.

The results on the survey sent to the membership were 2 to 1 to resume in-person meetings in June. So we will see everyone on June 10th.

**June 2021 Meeting**

The General Meeting for June will be on June 10th at 7 pm at the American Legion Hall, Kent. The exact address is on our website.

When we resume our in-person meetings the club has obtained sanitizers to sanitize the tables, chairs and hands. Everyone will be required to wear a mask.

Check the website for meeting updates and meeting topics.

**Lower Dues for 2021**

2021 club membership dues is \$15 for a family or individual!

The Board has approved a temporary reduction in our dues for 2021 only to \$15 per family or individual.

Our club is resuming in person general meetings on June 10th. Our general meetings are held on the 2nd Thursdays of each month at 7 pm. Check the website for meeting topics.

From our website you can use a credit card to renew your membership. You can also mail a check to CMS, c/o Charles Benedict, 25838 W. Lake Wilderness Dr. SE, Maple Valley WA 98038.

**Join/Renew  
Today**

**From the Top of the Rock Pile...** by Kat Koch, CMS President

We will be resuming in-person club meetings on June 10th, Thursday at 7 pm. We will have our regular meeting the American Legion Hall, Kent. I am so looking forward to seeing everyone!

We saw some new faces at our April Zoom meeting. Jim Grace did a great talk on what he looks for in a mineral to facet. Rich and Mike (a new member) chimed in too as they are also faceters. It was really a good meeting and I should have recorded it for our club YouTube channel. Thank you Jim for speaking.

We continue to have about 5 new members every month via our website. I want to welcome each of you to our great rock club. I am looking forward to meeting everyone in June!

Stay home, always wear a mask if you have to go out, and be sure to sanitize your hands constantly. I hope everyone stays safe and healthy as we all want to see each other this year.



**New for Members Only – New Texting Service**

You can now sign up for club text reminders for our upcoming meetings and events.

We are all busy and often times forget CMS has an upcoming meeting or event.

Go to our website and in the lower right corner you can register for this service. If you are unable to go to our website you can send a text to the number 21000 and in the body put the word rocks.

So be sure to take advantage of this service. The only stipulation is that you must be a club member. There will be a random drawing for a nice prize after 30 members have registered for the text messaging reminders. *So register now and get in the drawing!*

**Text Reminder**



**New Bills In Congress** by Bob Pattie

During our last meeting I listed some of the current bill being considered. I asked people to look up these bills and read about what is happening to our collecting sites.

I am just listing a few of the 92 bill current to be considered, the titles of these bill in the 117th US congress, you can just search (google, etc.) by number and title, HB is House of Representative and S is Senate.

H.R. 1162: 21st Century Conservation Corps Act

S. 455: Wild Olympics Wilderness and Wild and Scenic Rivers Act

H.R. 999: Wild Olympics Wilderness and Wild and Scenic Rivers Act

H.R. 878: Northwest California Wilderness, Recreation, and Working Forests Act

H.R. 577: Colorado Outdoor Recreation and Economy Act

H.R. 803: Protecting America's Wilderness and Public Lands Act

S. 487: 21st Century Conservation Corps Act

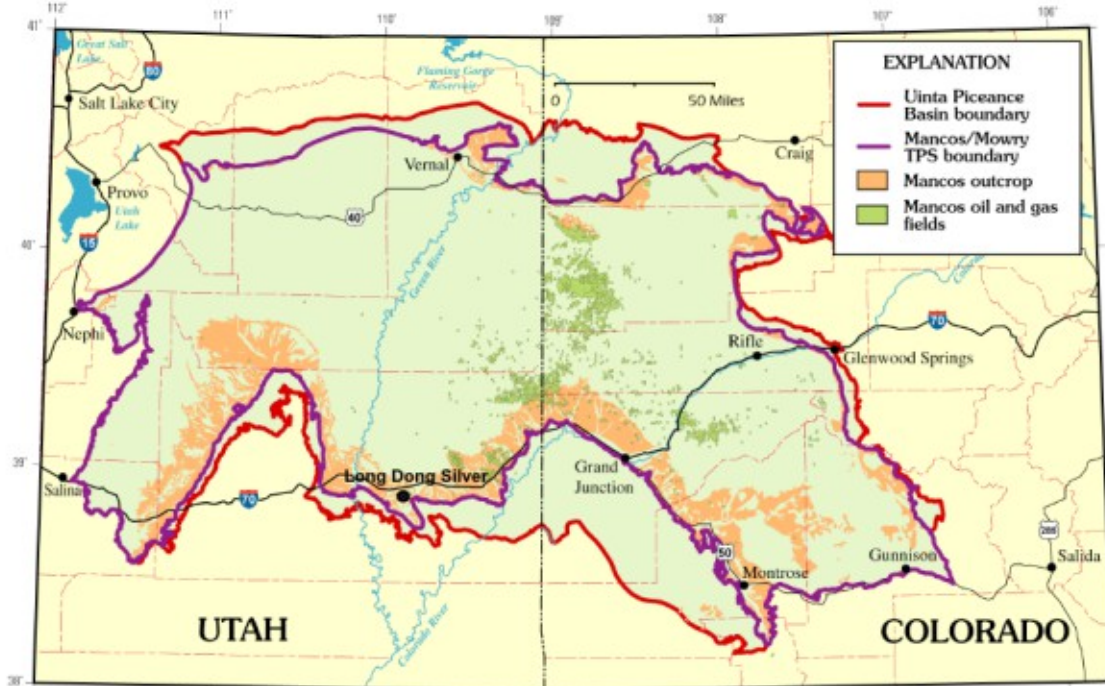
S. 192: River Democracy Act of 2021

H.R. 279: Roadless Area Conservation Act of 2021

These bill seemed to concern rock collection and the general use and access of the public land that effect our hobby. I would suggest that some people read a couple of the bill and then send a short note to me we will be able to concentrate on those that effect us the most. If you send me your remarks I will not use your name in the summary. This would not stop someone from sending their comments directly to the Senators of Representative thus getting your name on the list of support or negative reply.

I will have more information on specific bills for our future meetings.

### Long Dong Silver, Utah – Shale Needle by Kat Koch



The rock formation, Long Dong Silver, is located near Hanksville, Utah. It's rock composition is horizontal fracturing Mancos Shale. The Mancos Shale area is dominated by mudrock that accumulated in offshore and marine environments of the Cretaceous North American Inland Sea. The Mancos was deposited approximately from 95 to 80 million years ago.  
*References: Wikipedia, Mountain Project*



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## World's Largest Intact Meteorites by Kat Koch

We have all heard of or seen a palm sized meteors that weight from ounces to maybe even a pound. But did you know though that there are meteors found on earth that weight the same an armor tank or a cargo helicopter and are so large you need a crane to move them?

Below are the 2 largest (in weight) intact meteors found on earth:

**Hoba Meteorite:** Found near Grootfontein, Namibia in 1920. It was discovered by chance when a farmer was ploughing his field with an ox.

It's estimated to weight at the time it was found was over 66 tonnes. With erosion, scientific sampling and vandalism it's bulk has been reduced over the years. The remaining mass is estimated at just over 60 tonnes. It is also the most massive naturally occurring piece of iron (actually ferronickel) known on Earth's surface. The meteorite is composed of about 84% iron and 16% nickel with traces of cobalt. It has never been moved because of it's large mass.

The Hoba meteorite impact is thought to have occurred more recently than 80,000 years ago. There is also also evidence of an impact crater left.

**Cape York Meteorite:** In 1894 the first foreigner to discover the meteor was Robert Peary with the assistance of Inuit guides. It was known to the local Inuit people for centuries, who used it as a source of iron for tools.

It lies just east of Cape York on Meteorite Island, Greenland. Eight large fragments of the meteor have been found totaling 58 tonnes. The largest single intact piece weights 31 tonnes. It is an iron meteor (medium octahedrite) with approximately 8% nickel. Large pieces are on display at the American Museum of Natural History, New York City, New York and the University of Copenhagen Geological Museum, Denmark.

The age of the meteor is debated. The meteorite fell to Earth after the retreat of glaciers from the area. The meteorite lay on an ice-free slope 500 m from the shore and was partly covered with gneiss boulders. There was no crater and no crushing of rocks discovered. All fragments recovered were found at the surface, partly buried, some on unstable terrain. The largest fragment was recovered in an area where the landscape consists of "flowing" gravel or clay-like sediments on permafrost, indicating that it had been in place for no more than a few thousand years. Other estimates have put the date of the fall as 10,000 years ago.

Note: A short ton is the US customary version, is equal to 2,000 pounds.

A long ton is the mostly outdated Imperial Ton is equal to 2,240 pounds.

A tonne, also known as a metric ton, is equal to 2,204.6 pounds.

Below is the largest (in dimension) intact meteorite found on earth:

**Willamette Meteorite:** Originally known as Tomanowos by the Clackamas Chinook Native American tribe. The meteorite was venerated by the Clackamas people long before it discovered by a European settler, Ellis Hughes, in 1902. At that time Mr. Hughes was an employee of the Oregon Iron and Steel Company. He tried to secretly move the meteorite to his own land. This involved 90 days of hard work to cover the 3/4 mile in distance. The move was discovered, and after a lawsuit, the Oregon Supreme Court ruled that the Oregon Iron and Steel Company was the legal owner. It's original location was near the modern city of West Linn, Oregon.

Subsequently the stone was privately purchased by Mrs. William E. Dodge Jr. in 1906. After displaying it at the Lewis and Clark Centennial Exposition, she donated it to the American Museum of Natural History in New York City. In 1999 the Confederated Tribes of the Grand Ronde Community of Oregon (CTGRC), a confederation of Native American tribes, demanded that it be returned and filed an action pursuant to the Native American Graves and Protection and Repatriation Act against the American Museum of Natural History. Through a negotiated agreement the meteorite is still on display at the American Museum of Natural History in New York City.

The lack of an impact crater at the discovery site was only explained after the 1920's, with the new understanding about the Missoula Floods, one of the largest floods documented, caused by the collapse of an ice barrier during the last deglaciation about 13,000 years ago. The meteorite presumably landed on an ice cap in what is now Montana or western Canada and was dragged by the glacier ice to the vicinity of an ice barrier that formed across the Clark Fork River.

It's estimated to weight 15.5 US tons or 14.2 tonnes. It is an iron





meteor (medium octahedrite) with approximately 91% iron, 7.62% nickel with traces of cobalt and phosphorus. There is also a historical marker in West Linn. The only exact replica in existence is currently installed in the Chachalu Museum at the Confederated Tribes of Grand Ronde (CTGR) in Grand Ronde, Oregon.

For a more detailed and interesting article on the history of this meteorite you can read further at [https://en.wikipedia.org/wiki/Willamette\\_Meteorite](https://en.wikipedia.org/wiki/Willamette_Meteorite)

Bibliography: Wikipedia, Bing, Business Insider

### **Recreational Rockhounding 2021-2028 and Beyond** by John R. Martin, Conservation and Legislation Chair Just FYI!

Recreational Rockhounding has just been given its death blow. This is the newest Director of the BLM and look at her credentials and positions in her previous life. Save what you have, get as much as you can while you can, and Rest in Peace Rockhounds. It has been a great ride, and all rides must come to an end at some point in time. The Recreational Rockhound is at the end of its ride as we know it.

Interior Department Welcomes Newest Member of the Leadership Team

Nada Culver - Deputy Director, Policy and Programs, Bureau of Land Management

Nada Wolff Culver most recently served as the Vice President, Public Lands and Senior Policy Counsel at the National Audubon Society. Prior to joining Audubon, Nada was the Senior Counsel and Senior Director for Policy and Planning at The Wilderness Society. Nada began her career in the private sector, working on a variety of environmental issues including energy development and environmental remediation, and was a partner with the law firm of Patton Boggs. She is a graduate of Northwestern University and the University of Pennsylvania School of Law.

I can only hope I am wrong this time, but the Road on which we are headed is well marked.

from AFMS Newsletter, 4/21

### **My Hunt for Early Issues of Faded Glory** by Jennifer Haley, AFMS Historian

As I continue my hunt for old copies of early rock, gem and mineral magazines, and newsletters, rarely do I find a lot of what I am searching for. It is always a treat when someone contacts me to ask if I would be interested in a long forgotten old issue found in a society or family storage, or a small bundle of what I call, "faded glory," when it comes to our history of rock-hounding in print form.

Sometimes I find someone who has scanned and downloaded some of the older issues, which is a thrill for an AFMS Historian. Some of these issues date back to the 1800's and early 1900's.

If your federation, society, or family member comes across old issues you no longer wish to keep, even if they look worn, please let me know. Most likely I will want them for the AFMS.

Historian archives. I will be happy to pay for the postage. Jennifer Haley <ladybuglane at napablogger dot com>

from AFMS Newsletter, 4/21

### **There Is Nothing New On Earth?** by Kat Koch

It's easy to assume that there aren't that many types of rocks left to discover, but it turns out that the Earth is still hiding some up its sleeves – or, as in this case may be, deep below the ocean.

An international team of scientists, from the Leeds' Institute of Geophysics and Tectonics, were on the Research Vessel (RV) JOIDES "Resolution" doing core drilling research. They were located about 625 miles southwest of Japan's Mount Fuji volcano and had drilled down approximately 3,730 feet down to the ocean floor of the Amami Sankaku Basin plus further down another 930 feet. The research area was part of the birth of the "Ring of Fire" – a horseshoe-shaped belt known for regular volcanic eruptions and earthquakes. It stretches about 25,000 miles around the Pacific, and is thought to have begun forming at least 50 million years ago.

Basalt is among the most common type of rock on earth. The researchers were looking for basalt that was formed during early Ring of Fire volcanic eruptions. To their surprise they discovered a new form of basalt!

The newly discovered basalt has a completely unique chemical and mineral makeup and is distinctly different to other basalt that were already known about. In fact, they may be as different to Earth's known ocean floor basalts as Earth's basalts are to the Moon's basalts. The new basalt is a tholeiite that's low in titanium and potassium, and bears aluminum-rich gemstones called spinels.

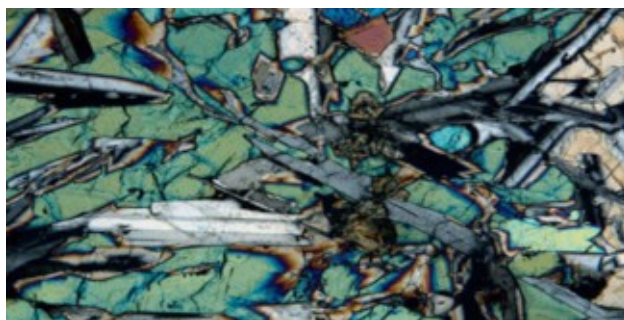
The geologists say that these rocks were produced during large and very hot volcanic eruptions, back when the Ring of Fire was first forming some 50 million years ago. The magma that formed them was transported to the surface very quickly, from its source in the upper mantle where it was exposed to pressures between 0.7 and 2 Giga Pascals. The



eruptions that created the newly-discovered basalt were very widespread (covering areas the size of western Europe) and occurred in a relatively short geological timescale of between 1-2 million years. Now that scientists know where and how this rock type is formed, they anticipate that many other known rocks that were originally formed by ocean floor eruptions will be re-examined and potentially alter their wider understanding of the basalt formation.

This discovery raises the possibility that the eruptions in the ocean floor sourced in the earth's mantle were even hotter and more voluminous than previously thought. This newly discovered type of basalt is quite different from the rocks of this type in its chemical and mineral makeup. What's more, the rock may be as different from Earth's known ocean floor basalts as Earth's basalts are to the Moon's basalts.

Bibliography: Tech Explorist, Geology In, New Atlas, Wikipedia

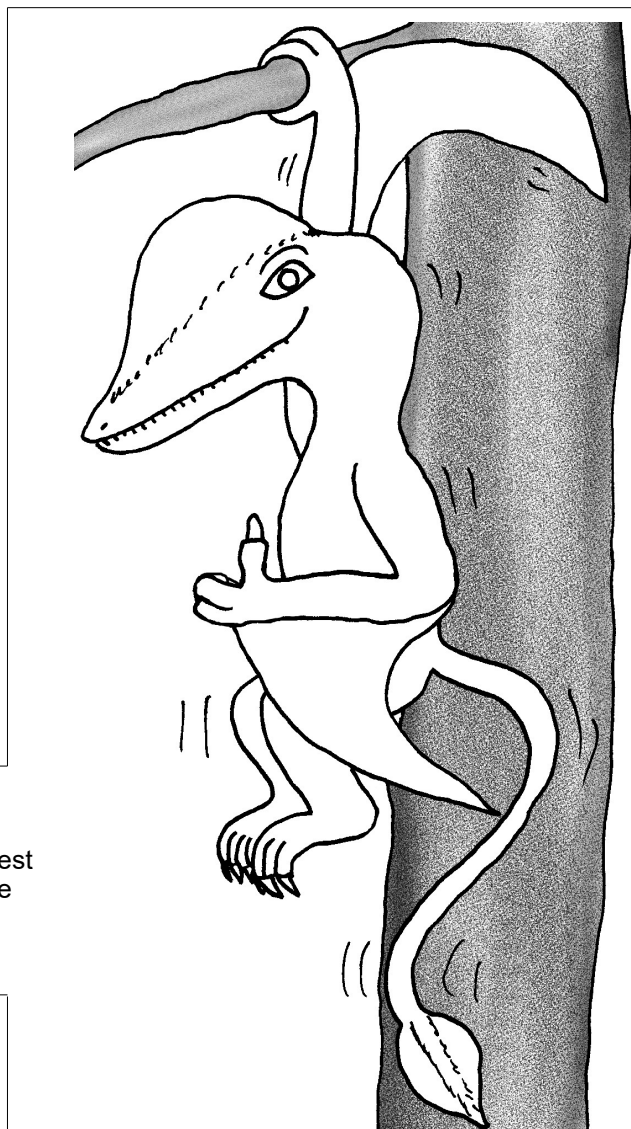
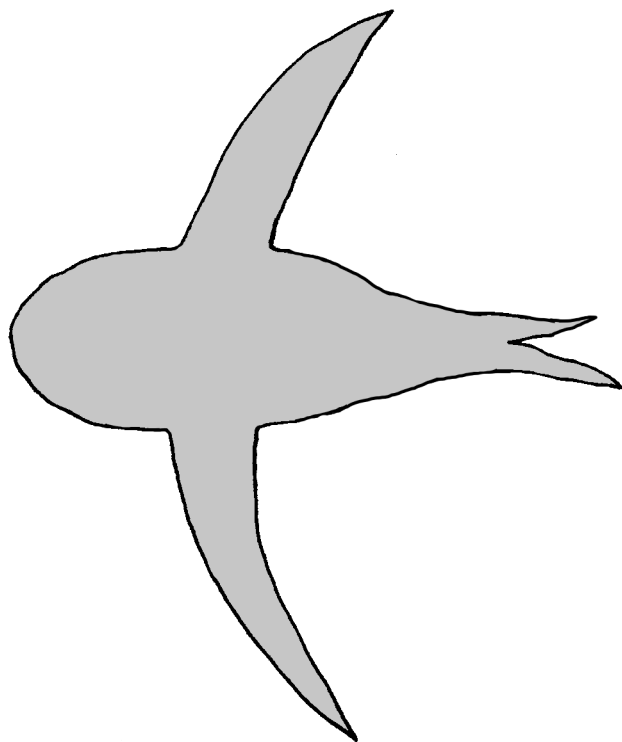


## Young Tumblers News

### Eagle Shark by Keith Alan Morgan

Scientists have discovered an unusual shark fossil preserved in limestone from the Vallecillo limestone quarry in Mexico. Called an eagle shark or *Aquilolamna milarcae*, the limestone preserved the shark's outline showing that it had long, thin fins that look like wings. Fin tip to fin tip the 95 million year old shark was six feet wide, while only being 5.4 feet long. It had a bulbous head and was a filter feeder.

Normally only a shark's teeth are found, whereas paleontologists couldn't find any fossil teeth with this specimen.



### Thumbs Up To Monkeydactyl by Keith Alan Morgan

Monkeydactyl, or *Kunpengopterus antipollicatus*, is the first discovered pterosaur to have opposable thumbs and is also the oldest known fossil to have opposable thumbs at 160 million years old. The fossil was found in northeastern China and it's believed that the opposable thumbs helped it to climb trees.

Some wax, like ozokerite, forms naturally in nature and is mined from the earth. It has a higher melting point than beeswax or common man-made waxes.



## Field Trips

The club or clubs sponsoring the field trips are shown in italics. When known I have listed a phone number and contact person for each sponsoring club below the listed trips. If you are not a member of the sponsoring club, you should phone and ask permission to go on their field trip.

Information from the Washington State Mineral Council webpage (<https://mineralcouncil.wordpress.com>).

- May 9** *Darrington Rock Club - Cascade River Marblemount* – Meet before 9 am left turn - Talc, Listwonite etc (small fee) - Bring hard rock tools  
Ed Lehman [wsmced@hotmail.com](mailto:wsmced@hotmail.com) h# (425) 334-6282 c# (425) 760-2786
- May 15** *Cascade Mineralogical Society - First Creek* – agate, jasper, geodes  
Roger Danneman [roger.danneman@gmail.com](mailto:roger.danneman@gmail.com); 425-228-8781 hm or 425-757-3506 cell.
- May 23** *Darrington Rock Club - Red Bridge Verlot* – Meet at Verlot Ranger Station before 9 am - Rainbow chert, concretions – Bring light hard rock tools  
Ed Lehman [wsmced@hotmail.com](mailto:wsmced@hotmail.com) h# (425) 334-6282 c# (425) 760-2786

### Field Trips by Roger Danneman ([Roger.Danneman@gmail.com](mailto:Roger.Danneman@gmail.com))

On March 21st we had 12 folks in 8 vehicles go to Baker Lake / Swift Creek. The weather was a little cool and damp, but all in all not that bad. This area has sedimentary rocks that have metamorphosed into some interesting swirls and patterns, as well as some agate, jasper, and an occasional piece of nephrite jade. There are various colors to be had, but green is the predominant one with a lot of serpentine family rocks there. Also a lot of quartz veined rocks. I think this is a good spot to go early in the season before the reservoir pools up because many of our other sites are covered with snow.

April 24th is our trip to Saddle Mtn for petrified wood. I'm writing this pre-trip, but by the time you read this, the trip report should be on Facebook and the CMS Web page. If you are interested in field trips and are not getting my e-mails announcing upcoming trips and details, you need to send me your e-mail address so I can add you to the distribution list.

On May 15th I'll be leading a trip into First Creek. It's a 2 mile hike on a good road bed. Several of us have employed jogging strollers to take the load off our backs, and that has worked well. This area has some nice agate nodules, jasper, and crystal lined geodes. One caveat is that the ticks are out at this locale in the spring. So tick spray is recommended. I'll be sending out an e-mail to the field trip distribution list a week before the trip.

Another option for May 15th is the WA State Mineral Council trip to Andre's private talc mine. I really enjoyed this trip a few years ago and there's no hike. Talc is a very interesting mineral. The rocks are heavy and dense, but soft enough to cut with a hand saw and mineral oil will bring out the color. Another rock I found here is Bowenite, which has a nice green color. There is no fee for this trip, but a tip for Andre would be appreciated. He's a wealth of information and very knowledgeable on rocks and minerals. Contact Ed Lehman at [wsmced2@outlook.com](mailto:wsmced2@outlook.com) or (425) 334-6282 or (425) 760-2786.

If you're on Facebook, join our CMS Group page at <https://www.facebook.com/groups/cascademineralsociety>

We enjoy posting our field trip finds as well as sharing our lapidary endeavors, etc.



If a tree beats a rock in the middle of the forest, does anyone look for a pair of broken scissors?

Did you hear the song about the tortilla? Actually, it was more of a wrap.

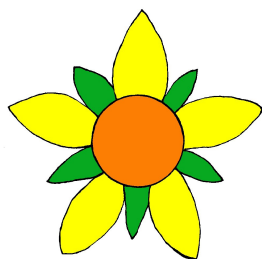
What happened to the rockhound who went to Las Vegas? He lost his Chert.

Never lend a geologist money. They consider a million years recent!!!

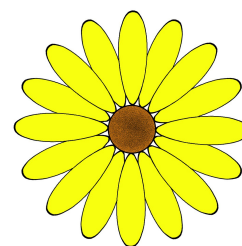
from Breccia, 3/21



# Show



May 22 & 23: Saturday 10 am – 5 pm; Sunday 10 am – 4 pm  
Hatrockhounds Gem & Mineral Society  
Eastern Oregon Trade & Event Center  
1705 East Airport Road  
Hermiston Oregon



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## Prairie Agates

Designated as the Nebraska State rock by the 1967 State Legislature, the prairie agate is not a true agate. This rock grades into banded or layered chert rather than agate.

Prairie agates are found in northwest Nebraska, southwest South Dakota, and northeast Wyoming. Since these are the same areas where the much-sought-after Fairburn agates are found, many rockhounds mistake some of the banded prairie agates for Fairburns. These are referred to as “Nearburns” by the more knowledgeable.

Although ignored by many of the natives of the area where they are found, prairie agates lend themselves very well to lapidary. Because of the coloration of these nodules, which runs from bright yellows and reds to subdued pastel shades of pink, lavender, blue, tan and grey, many beautiful specimens can be cut and polished. The fascinating blend of colors also can be captured in cabochons to make attractive and novel jewelry pieces.

Using the same procedure as used when working true agate, the lapidary is rewarded with a brilliant polish on any piece of prairie agate he works with.

via AFMS Newsletter, 9/20 ; from The Glacial Drifter, 1/91 & 2/20

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## Suggested Polishes For Various Stones

Cerium Oxide on Canvas for — Agate, Glass, Hematite, Howlite, Jasper, Opal, Rhyolite.

Tin Oxide on Leather for — Alabaster, Amazonite, Amber, Aventurine, Coral, Datolite, Epidote, Feldspar, Fluorite, Gypsum, Labradorite, Lapis Lazuli, Malachite, Moonstone, Nephrite, Obsidian, Rhodochrosite, Turquoise, Variscite.

Linde A on Leather for — Apatite, Chialstolite, Cinnabar, Garnet, Jade, Peridot, Rhodonite, Tourmaline, Serpentine.

Linde A on Canvas for — Bloodstone, Hickoryite, Jadeite.

Diamond on Wood for — Ruby, Sapphire.

Linde A on Felt for — Spinel

Linde A on Cork for — Topaz

Tin Oxide on Cork for — Travertine

via Breccia, 2/21; via San Fernando Valley Mineral and Gem Society, 1975; from Spit and Polish

When you are polishing Wood Limbs, instead of using Tin Oxide, use Tripoli for a glass - like polish at a lesser cost.

via Breccia, 2/21; via San Fernando Valley Mineral and Gem Society, 1975; from The Polished Slab

Polish Howlite on a felt wheel as leather will often stain Howlite.

via Breccia, 2/21; via San Fernando Valley Mineral and Gem Society, 1975; from Arrowhead Chips

Organdy Material will sometimes put a polish on pieces of Turquoise that does not respond to felt or rag polish wheels.

via Breccia, 2/21; via San Fernando Valley Mineral and Gem Society, 1975; from Diggers Digest

Spic and Span has Oxalic Acid in it, and is especially good in polishing mixtures.

via Breccia, 2/21; via San Fernando Valley Mineral and Gem Society, 1975; from Strata Gems

Monument makers use a weak solution of Oxalic Acid to acquire the glassy shine on Granite. Dissolve a little oxalic acid in water and work into your felt buff, to add to your polishing paste. Try it on Agates and other such stones.

via Breccia, 2/21; via San Fernando Valley Mineral and Gem Society, 1975; from The Polished Slab