

WASHINGTON AGATE & MINERAL SOCIETY NEWSLETTER

Volume XXV ISSUE 4
WA

AUGUST 2022

OLYMPIA

WEBSITE: [HTTP://WWW.WAMSOLYMPIA.COM](http://www.wamsolympia.com)

REFRESHMENT LIST:

SEPTEMBER: Doug

OCTOBER: Bryan 

NOVEMBER: Jim Proeske 

DECEMBER: Christmas Party!

TREASURY REPORT: The bank accounts stand at \$10,367.91. In addition we have 20 tables, a shed, and 2 canopies.

BUY...SELL...TRADE:

Space is offered free to WAMS members to buy, sell or trade equipment or material related to rocks or minerals. See below.

WASHINGTON AGATE & MINERAL SOCIETY (The Oldest Rock and Mineral Club in Washington State, founded February 3, 1937)

Mailing address: P O Box 2553 Olympia WA 98507-2553

WAMS meets the first Tuesday of each month, 7:00 p.m., at the First Baptist Church of Lacey, 4702 22nd (corner of College St. and 22nd) [MAP](#)

August meeting will take place at the Rose Garden Gazebo at Squaxin Park (formerly known as Priest Point Park) on August 2, 2022 at 6:00 PM. This will be pot luck so please plan on bringing food and drinks, Thanks.

Officers:

PRESIDENT: Bryan Tallman 360-545-5537 email: bryantallman6@gmail.com

VICE-PRESIDENT: Steve Conjulusa 360-304-1821

SECRETARY: Doug Shank 360-701-3769 email: douglas.e.shank@gmail.com

TREASURER: Doug Shank 360-701-3769 email: douglas.e.shank@gmail.com

Committee Chairs:

PROGRAMS: Bryan Tallman

ROCK SHOW: Dan DeBoer 360-866-3940

NEWSLETTER: Doug Shank 360-701-3769

WEB SITE: Gretchen

Newsletter Staff:

Printing & Mailing Doug Shank 360-701-3769

The Washington Agate & Mineral Society (WAMS) Newsletter is posted on the website monthly. Material may be reprinted if properly credited. Deadline for submissions is the 20th of each month.

The BLM's 1968 visitor to the public lands pledge:

I pledge to;

Keep the land clean and free of litter,

Respect and treat the land as my own,

Leave gates and fences as I find them,

Obey state game and fish laws,

Be careful with fire.

Rockhound Code of Ethics

The Rockhound's 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 and rules governing collecting on private 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 materials 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 materials – 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 damage to collecting material and will take home only what I can reasonably use.

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 proper authorities, any deposit of petrified wood or other material on public lands which should be protected for the enjoyment of future generations and 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 time conduct myself in a manner which will add to the stature and Public Image of Rockhounds.

The Rock and Gem Rendezvous 2022

Thank you to all the volunteers who helped with this year's show in Tenino: Dan DeBoer, MJ Hueter, Jim Proeske, Bob and Cathlene, Bryan, Jim Sachet, Gretchen, Becky, Daniel and Daniel's mom, Emery and her mom, Audrey, and Jerry. This event would not have been successful without the wonderful volunteers. Day 1, Friday: great turnout of

customers at our booth and other vendors; Day 2 Saturday: super busy right off the bat and the crowds were huge; the rock and gem show was really hopping! Day 3, Sunday: a few returning customers and a fairly steady flow of people until late in the day. It was an enjoyable weekend and everything went very well.

WELCOME TO ALL THE NEW MEMBERS!

Membership dues for next year, 2022-2023, will be collected in October and November, coinciding with the fiscal year ending on October 30th. Membership fees are \$5.00 for one person and \$10.00 for a family.

COMING SHOWS:

[Maplewood Rock & Gem Sale - 8/13/2022](#)

Start Date: 8/13/2022

End Date: 8/14/2022

Hours: Sat 9:00-5:00 Sun 10:00-5:00

Address:

8802 196th St SW

Maplewood Rock & Gem Clubhouse

Edmonds, WA

Website: <http://www.maplewoodrockclub.com/home>

[Gem Show in The Trees - 8/19/2022](#)

Start Date: 8/19/2022

End Date: 8/21/2022

Hours: 10:00 - 6:00

Address:

16049 Canyon Rd E

Tacoma Sportsmen's Club

Puyallup, WA

Website: <http://puyallupvalleygemandmineralclub.com/>

[Cascade Gem and Mineral Show - 8/20/2022](#)

Start Date: 8/20/2022

End Date: 8/21/2022

Hours: Sat 10:00 - 6:00 Sun 10:00 - 4:00

Address:

12401 SE 320th ST

Green River College - Phys. Ed Facility

Auburn, WA 98092

Website: <http://www.cascademineralogicalsociety.org/>

[Tailgate Rock Sale & Swap - 8/20/2022](#)

Start Date: 8/20/2022

End Date: 8/20/2022

Hours: 9:00 - 5:00

Address:

2100 E Johns Prairie Road

Mason County Recreation Area

Shelton, WA

Website: <http://sheltonrockclub.weebly.com/>

Links to other community websites:

<https://www.washingtonminerals.com/>
<http://www.northseattlerockclub.org/>
http://orerockon.com/ore_rock.htm
<https://mineralcouncil.wordpress.com/>
<https://puvallupvalleygemandmineralclub.com/>
<https://www.kmgsrockclub.com/>
<https://everettrockclub.com/>
<https://www.marysvilleroackclub.com/>
<https://www.cascademineralogicalsociety.org/>

Resources:

[BLM COLLECTING ON PUBLIC LANDS \(PDF\)](#)

INTERNET ROCK SITES

1. www.orerockon.com - Pacific NW field trips, equip buy/sell, misc.
2. www.wrightsrockshop.com Has everything.
3. www.agateswithinclusions.com. The name sums it up.
4. www.geocities.com/Yosemite/Forest/2031/ . Terry's Oregon Rock Page has info on Oregon collecting.
5. Information on collecting in Eastern Oregon during the Madras Pow Wow: Write Eula Dillard, 145 E. 179th, Spanaway WA 98387 or call 253-847-2755.
6. www.wyodinator.org and www.thermopywy.net/bhbf for dinosaur excavation trips.
7. <http://mineral.galleries.com/minerals/byname.htm>
Part of Amethyst Galleries, Inc.'s web site, this is a listing of all the minerals in that company's (extremely extensive)database. More than a mere list, however, each entry is linked to its own page, giving info. such as the mineral's chemical composition, history, physical characteristics, and so on.
8. <http://www.goodearth.com/virtcave.html> The virtual cave site offers a directory of all caves in the US that are open to the public.
9. <http://www.luckystrikemine.com> Info from Prineville, OR rock dig site.
10. <http://www.thegemshop.com>. The Gem Shop in Cedarburg, Wisconsin hold claims to central Oregon rock sites.
11. www.rockhounds.com This is a great site! Every aspect of rockhounding is addressed or it gives you a link.

12. www.stonetrails.com/ORlocs/ORlocs.htm Oregon rock sites Replace OR with WA...you'll get Washington sites.
13. <http://www.kinglseynorth.com>. Buy grit in bulk.
14. www.fs.fed.us/ - Fees and required permits for access to Federal lands.
15. General interest sites: www.rockhounds.com, www.fireagate.com, www.awesomegems.com
16. Be sure to go to our website (See top of Page 1). There are numerous links to other sites.
17. WEBSITES FOR DINO LOVERS
<http://dsc.discovery.com> Look for games and videos
<http://www.paleoportal.org>
<http://www.msnbc.msn.com> Look for technology and science.
<http://www.geo.ucalgary.ca>
<http://www.scienceschoolhouse.com>
18. <http://www.jescoproducts.com> Buy grit in bulk

Washington State Mineral Council Fieldtrips:

1. 08/06-07 – Greenwater. Forest Service Station, Enumclaw
2. Little Naches Hwy 410 & FR 19 @ 10:00. Agate, Jasper, Petrified Wood & Opal, T-Eggs Fossils, Lilypad Jasper

Updated 07/26/22

The World's 10 Most Deadly Minerals

gemstones, Mineralogy



Precious minerals make the modern world go 'round—they're used in everything from circuit boards to tableware. They're also some of the most toxic materials known to science, and excavating them has proved so dangerous over the years, some have been phased out of industrial production altogether. Listed below are the 10 most deadly minerals on earth. These rocks do not need to be thrown to hurt you!!

Chalcanthite - $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$



Natural Chalcanthite from Planet Mine, Buckskin Mts, La Paz Co., Arizona, USA
Photo: Tony Peterson

[Chalcanthite](#) is a hydrated water-soluble copper sulfate. The mineral is used to ore copper, however it's necessary to keep the environment dry as the mineral can easily dissolve and recrystallize in a wet environment. It is water soluble and will crystallise out again from solution. The copper in this mineral is very bio-available and is toxic to plants and in high quantities toxic to humans.

[Stibnite - Sb₂S₃](#)



Stibnite and Calcite From Herja Mine, Chiuzbaia (Kisbanya), Baia Mare, Maramures Co., Romania.
Photo: Quebul Fine Minerals

[Stibnite](#) is a toxic antimony sulfide mineral with an orthorhombic crystal lattice and a source of metalloid antimony. Stibnite paste has been used for thousands of years for cosmetics to darken eyebrows and lashes. The mineral was also used to make eating utensils, causing poisoning from antimony ingestion.

Asbestos - $\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$



Asbestos

You have likely heard of the mineral [asbestos](#) and associate it with lung cancer. Asbestos is not one mineral but six defined separate minerals. Unlike the other minerals in the top 10 deadliest. This silicate mineral grows thin fibers crystals that can easily break off and form dust particles. And it was once widely used for a variety of commercial and industrial applications thanks to its strong, fire-resistant, and flexible nature—from ceiling tiles and roofing materials to flooring and thermal insulation. The fibers can cause lung cancer, mesothelioma, and asbestosis.

Torbernite - $\text{Cu}(\text{UO}_2)_2(\text{PO}_4)_2 \cdot 8 - 12 \text{H}_2\text{O}$



Torbernite from Musonoi Mine, Congo

[Torbernite](#) is a dangerous mineral composed of hydrated green copper, phosphate, and uranyl. The mineral is often found in granites that contain uranium and is dangerous due to its radioactive nature. The mineral releases radon naturally and can cause lung cancer if exposure is long enough. This is one mineral you do not want on your display cabinet shelf.

Cinnabar - HgS



Cinnabar from Wanshan mine, China. credit: Dakota Matrix Minerals

[Cinnabar](#) is a deep red mercury sulphide mineral that provides much of the world's elemental mercury. when oxidized, this element will produce methyl mercury and dimethyl mercury, two toxic compounds that cause irreparable harm to the nervous systems of children. It is deadly in small concentrations and can be absorbed through the respiratory tract, intestines, or skin.

Galena - PbS



© Dakota Matrix

Galena From Denton Mine, Hardin Co., Illinois, United States.

Photo: Dakota Matrix Minerals

[Galena](#) is one of the most abundant and widely distributed sulfide minerals. Galena is the principle ore of lead, and forms glistening silver cubes with almost unnaturally perfect shapes. Although lead is normally extremely flexible, the sulfur content of galena makes it extraordinarily brittle and reactive to chemical treatment. It's not as bad as mercury, which will kill you immediately outright, but lead doesn't get flushed out of your system. It accumulates over the years, eventually reaching toxic levels. Once that happens both you and your kids pay the price, as lead toxicity is carcinogenic to you and is teratogenic (causing severe birth defects) to your offspring.

Hutchinsonite - $(\text{Tl,Pb})_2\text{As}_5\text{S}_9$



© Dakota Matrix Minerals
Hutchinsonite from Quiruvilca Mine, Peru
Photo: Dakota Matrix Minerals

[Hutchinsonite](#) is a form of arsenic sulfide with thallium and lead that can be found in hydrothermal vents. Thallium salts are nearly tasteless and highly toxic and have been used in rat poison and insecticides. The thallium inclusion in this arsenic sulfide combines two extremely dangerous and deadly minerals. Exposure to this mineral can potentially lead to death.

Orpiment - As_2S_3



© Dakota Matrix

Orpiment from Twin Creeks mine, Humboldt Co., Nevada

Photo: Dakota Matrix Minerals

[Orpiment](#) is another arsenic sulfide mineral with a stunning orange-yellow color. The mineral is found naturally in hydrothermal vents, hot springs, and fumaroles. Strangely, this mineral was once used medicinally in China despite its toxicity and in alchemy in search for a way to create gold. The arsenic, especially if it is allowed to oxidize, will lead to arsenic poisoning if handled incorrectly.

Riebeckite - $\text{Na}_2(\text{Fe}^{2+}_3\text{Fe}^{3+}_2)\text{Si}_8\text{O}_{22}(\text{OH})_2$



Blue Asbestos (Crocidolite). Credit: Flickr/Asbestorama.

The finely fibrous variety, known as [Crocidolite](#), usually originates from altered metamorphic rocks. It was once widely used for a variety of commercial and industrial applications thanks to its strong, fire-resistant, and flexible nature—from ceiling tiles and roofing materials to flooring and thermal insulation. The fibers can cause lung cancer, mesothelioma, and asbestosis.

Arsenopyrite - FeAsS



Arsenopyrite. Photo: Crystal Classics

Arsenopyrite is an iron arsenic sulfide with a brilliant steel metallic color often found in hydrothermal vents and pegmatites. The arsenic leads to a number of environmental and human damages and can sometimes be associated with gold deposits. Oxidation of arsenopyrite leads to soluble arsenic in water and subsequent acid mine drainage.

To read more about toxic rocks and minerals visit this site with a full list of over 280 gems and how they rate: <https://www.gemsociety.org/article/gemstone-toxicity-table/>