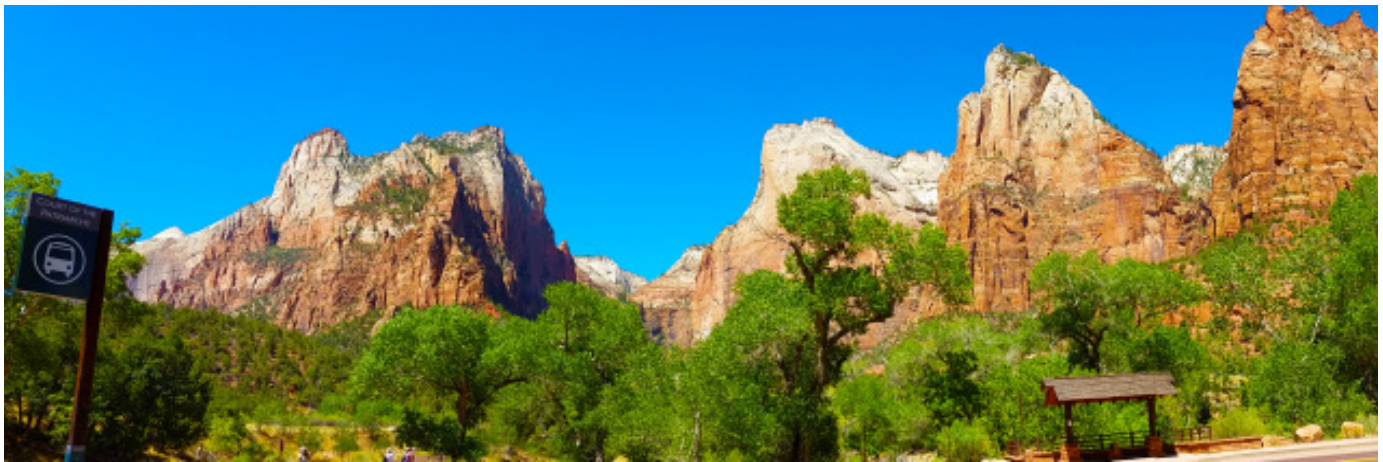


# ROCK TRAILS



## Newsletter of the StateLine Gem and Mineral Society

VOLUME 55  
ISSUE I  
JANUARY 2015

### 2014 Officers and Directors

President: Sherman Kardatzke, 517 673-5487  
Vice President: Glenda Gafner, 517 451-2079  
Secretary: Patricia Baier-Hay, 517 263-8585  
Treasurer: Doris Brzezicki, 517 263-1669  
Past President: Edmund Jarzembki, 419 237-2000  
First Year Director: Carl Mulholland, 734 428-1009  
Second Year Director: Kelly Cleveland, 419 882-8515  
Third Year Director: Charles Swanson, 517 759-0337  
Show Chairman: Doris Brzezicki, 517 263-1669  
Publicity: Edmund Jarzembki, 419 237-2000  
Sunshine: Catherine Choske, 517 423-3572  
Education & Lapidary:  
Henry Porter, 313 694-7642  
Richard Brzezicki, 517 263-1669  
Newsletter Editor: Sandy Gerhart, 517 265-6553,  
s\_gerhart@yahoo.com  
Website: <http://stateline.freewebspace.com>

### In This Issue:

Officers and Directors	1
Treasurer's Statement	2
Secretary's Scoop	3 - 4
Bench Tips	5 - 6
Zion National Park, Utah	7 - 8
Upcoming Events	9

Meetings are held the first Sunday of each month  
at 2:00 PM

at 201 W. Main St., Morenci, MI 49256



## Treasurer's Statement

Dues for 2015 are \$10.00 per individual and \$15.00 per family. You can pay them at the January meeting or send a check to State Line Gem & Mineral Society % Doris Brzezicki, 419 N. Broad St, Adrian, MI 49221. Club members decided that since we will not be required to pay for insurance thru the Mid West Federation, club dues will not be raised.



It seemed our "Cookie Exchange" went well with all members enjoying the fellowship. Thank you to all the members who contributed to the event. There were plenty of cookies for everyone. Maybe next year I should refer to it as a Cookie Fest, but whatever we call it, it should definitely be on the calendar.

The new bookcases donated by Pat Baier-Hay looked great in the classroom and will be much more accessible to members. We even had a book taken out by our new member.

Richard B and Bill Sipes hung some Christmas lights in the front window to share in Morenci's Christmas spirit. They hung some in the kitchen area too, but there was some difficulty keeping them up, so they removed them after the meeting.

Richard B had built some shelves for the display case in the gift shop and we wrapped them in some nice slate blue velvety material. I think the case looks quite nice, since Judy put several of our member sales items in it. I had planned on opening the shop for customers, but have had some health problems since the meeting.

Please add a new member to your membership list.

Dana Kubanda 318 E Edgerton St, Bryan, OH 43560 (419) 636-9171 kubandad@frontier.com

I send you my sincere wishes for a Merry Christmas and a Happy and Prosperous New Year.

Doris Brzezicki, State Line Gem & Mineral Society Treasurer



## Secretary's Scoop



The State Line Gem and Mineral Society December meeting was brought to order by president Ed Jarzembki at 2:20 pm with the invocation given by Richard B., and followed by the pledge of allegiance. Ed welcomed everyone to the club's meeting, cookie exchange, and raffle with a cordial welcome to a member and special guest, Steve Schimatski from the Toledo rock club.

Secretary's notes: Doris made a motion to accept the secretary's report as printed in the newsletter. Sherm seconded and the motion passed with all in favor.

Treasurer's report: Doris reported that she paid bills, including the club's web page, insurance and to continue the club's non-profit status. She also paid the rent and Consumer's Energy bills. We received a donation from the Art-a-licious committee to help in replacing the lost tent at the Art-a-licious storm where many other vendors also lost tents. Doris noted that our treasury is in amazingly good shape for this time of year and she was grateful to all the members who have worked so hard at the various club fundraisers so that we no longer have to worry about how we can afford to pay to keep the club going. Sherm made a motion to accept the treasurer's report, seconded by Richard B. and the motion passed with all in favor.

Doris said she has been unable to draft a budget for next year, so she was requesting the club's permission to pay the club's general bills including rent, utilities, etc., until she can present a budget for club approval. Phyllis made a motion to allow Doris to pay the club's bills which was seconded by Judy. A brief discussion ensued where Ed asked if the budget gets continued each year. Steve noted that as a point of order, the treasurer needed to cover any spending not previously approved by the club, such as an annual budget. Doris noted that the budget changes with the amount of income versus estimated spending, so a new budget needs to be approved each year once she gets all the information she needs about the activities and directions the club takes to create an accurate budget. Ed then asked for a vote on the motion and second. The motion passed with all in favor.

Doris worked with Glenda to get the raffle tickets distributed and accounted for.

Show report: Doris reported that that a couple of dealers were not returning, however we do have a dealer with beads and Linda Sharkey gave a referral for a dealer in Texas who is interested in selling at our show.

Other show aspects: Our grab bags have been very popular. Perhaps we could have some stuffing sessions and members sewing bags for next year's events. Phyllis and Judy have agreed to be in charge of the club raffle, show admission, and door prizes. Ed will do the silent auction. Richard B. will be in charge of cabbage. We still need volunteers for the children's table. Pat agreed to do the kitchen, and Bill will do the geode cracking with Charlie helping, provided all are in good health in May. Doris hopes some members can slab up stones for the silent auction and perhaps make some cabochons for sale or to make jewelry with.

We will also have the classes going on. Sandy Cline will do the soapstone carving and Joel Vickery will be there for the mine safety class. Again all of this is assuming everyone will be in good health.

Steve Schimatski noted that he enjoys our show very much and comes with his kids every year.

---

---

**Secretary's Report, continued from page 3**

Doris noticed that the gift shop is starting to look better and the library is shaping up with the new book cases, donated by Pat Baier-Hay. Doris extended a big thank you to all who have been working on improving the looks of the clubhouse. Doris suggested that we could have the gift shop open on Tuesday afternoons and even place an ad in the newspaper to let the public know we are open for business.

Richard reported that we needed to vote for the officers suggested by the election committee with the following nominations: President – Sherm Kardatzke, Vice-president – Glenda Gafner, 1<sup>st</sup> year Director – Carl Mulholland, 2<sup>nd</sup> year Director – Kelly Cleveland, 3<sup>rd</sup> year Director – Charles Swanson, Treasurer – Doris Brzezicki, Secretary – Pat Baier-Hay.

Current President Ed noted that he was willing to accept additional nominations from the floor but there were none. Doris made a motion to accept all nominated officers in one vote to save time. Richard seconded the motion and it passed with all in favor so all nominees were elected.

Ed stated that we have in the past had our installation dinner at restaurants, but the past few years we have had it as a pot luck in our clubhouse. He asked the members if they had a preference and it was decided that we all enjoyed the pot luck at the clubhouse.

Ed introduced our guest speaker, Steve Schimatski, from the Toledo Gem and Mineral Club. Steve was asked to share his knowledge about the Midwest Mineralogical Federation. He outlined some of the advantages, including access to the Federation library and the capability of inviting speakers or professors for club interests. The Federation also has newsletters with various information, resources and field trips open to members. They also have a Junior Rockhound Program which gives kids exposure to the whole gem and mineral experience. They can also earn badges. Steve thought it was good to get kids involved so that they can boomerang back in adulthood to enjoying clubs and helping to keep them alive. Steve said he got involved through his father. Each year, the Federation has a conference and one delegate from each member club is invited. There is judging for best new club, display cases, etc. Clubs can host a show for the Federation to come to and some even shop while they are there. The Federation also has a code of ethics, like not prospecting on private property without permission, and to fill in any excavation holes when finished. Ed asked if the insurance will be needed. Doris said it was cheaper to keep the insurance we currently have instead of picking it up through the Federation. Ed also wondered about the scholarship funds. We have done our own scholarship grants in the past. Glenda felt that it was good to keep it local. Steve said that the Federation bases their scholarship on all club submissions, so local grants would be more advantageous. Glenda made a motion to have our club join the Federation, seconded by Sherm. After a brief discussion, the motion passed with all in favor. Ed said Steve did a very good job with promoting the Federation.

The raffle was next on the agenda. Doris made a motion to do the raffle with the quilt and \$100.00 second prize if the State says it's ok. Glenda was going to call the State to verify that it would be ok, even though we did not sell the \$800.00 worth of tickets we anticipated. Phyllis seconded Doris' motion and it passed with all in favor. Our new member, Shirley, won the quilt and Mrs. Chalmer from Adrian won the 2<sup>nd</sup> prize of \$100.00. Prizes were withheld pending approval from the State.

Richard made a motion to adjourn, seconded by Steve, which passed with all in favor. Doris asked Ed to call the meeting back to order regarding funds that had been donated or earned through the Art-a-licious recuperative show. Ed called the meeting back to order and Doris made a motion to refund money to Glenda to help pay for the (destroyed) tent she loaned the club at Art-a-licious. Sherm seconded and the motion passed with all in favor. The meeting was then adjourned.

## Bench Tips

by Brad Smith  
SOLVENT DISPENSER

Frequently I need to fill a small bottle with alcohol, like an alcohol lamp or one of the nail polish bottles that I use for the yellow ochre anti-flux. Often I can't find a small funnel and end up spilling almost as much as I get into the bottle. It's wasteful, and the fumes can't be too good for you either.



A neat and inexpensive solution is to use a lab dispensing bottle to store small quantities of the solvents you frequently use. It has a wide mouth for filling and a fine tip for dispensing. You can get a small stream or just a drop or two. With the bottle's fine tip I don't spill a drop.

There are many suppliers on Google. One I've used is Carolina Biological Supply Company at [www.carolina.com](http://www.carolina.com) The bottle is Catalog # 716580 Unitary Wash Bottle, Low-Density Polyethylene, 125 mL

---

### SILVER DISCOLORATION

Working with jewelry involves an ever increasing number of skills. Chemistry is one of them that comes into play when dealing with a discoloration on the metal caused by a chemical reaction between it and the environment.

In the case of Sterling silver there are three discolorations we typically encounter: a tarnish, a firescale, and a firestain. Each is different in its cause, in its cure and in its prevention. All three have to do with the metals in the Sterling alloy (92.5% silver and 7.5% copper) and how they react with oxygen and the heat of soldering or with pollutants in the air over the long term.

Tarnish is a grayish coating that builds up slowly on the surface as a result of a reaction of the silver with sulfur-based compounds in the air. Typically these are pollutants from the burning of petroleum fuels, but they can come from other sources as well. I once tarnished all the silver in my display case by putting a pretty specimen of iron pyrite in with the jewelry. Turns out pyrite has sulfur in it! Sulfur combines with the silver to form a grayish silver sulfide film on the surface.

Preventing tarnish involves keeping sulfur away from the metal. Plastic bags will help, and anti-tarnish strips are available from jewelry supply companies to pack near your items. Tarnish is easily removed by hand polishing with a jeweler's cloth or with one of the products sold for cleaning the good silverware for holiday dinner.

Another way is to remove it chemically. Put a piece of aluminum in the bottom of a dish large enough to contain your piece. Heat enough water to cover the silver. Mix in 2 tablespoons of sodium carbonate per cup of water and pour into the dish. Be sure the silver touches the aluminum. Sodium carbonate is the main ingredient in washing soda. Read the labels in grocery and hardware stores.

---

Continued from page 5

The second type of tarnish is called firescale. It is the dark gray to charcoal colored film that forms on Sterling or other copper alloy like copper or bronze when we heat it with a torch. The copper in the alloy reacts with oxygen in the air to form a dark cupric oxide coating on the surface. Luckily, the oxide is easily removed by dissolving it in a mild acid - generally called a pickle. It's important that we not let firescale form on a solder joint because it will block the flow solder over the joint.

Prevention can be done two ways. Most common is to use a flux, a borax-based solution applied to the metal before soldering. When melted, borax forms a thin glassy layer that keeps oxygen away from the metal. A second way is to do your soldering on a charcoal block. Together with the flame, charcoal greatly reduces the amount of oxygen in the area being soldered. In either case oxygen is prevented from reaching the metal, so no cupric oxide firescale is formed.

A second oxide can also be formed when soldering copper or a high copper content alloy like bronze or brass. It's called cuprous oxide and is reddish in color. That's why a black looking piece you put in the pickle sometimes comes out red. Problem is that while the black cupric oxide is dissolved by a pickle, the red cuprous oxide is not. The discoloration can be sanded or polished off, but an easier way is to use a "super pickle". This is a mixture of fresh pickle with a healthy shot of hydrogen peroxide from the local store.

I've saved the worst form of discoloration, firestain, for last. Think of firescale (above) as like getting dirt on your shirt that you have to wash off. Firestain is like getting ink on it. The discoloration is not just on the surface, it seeps down and stains the material. Firestain happens when we heat a piece of silver too hot, too long, and/or too many times.

Firestain occurs when the oxides start to build up below the surface of the metal. You generally don't notice it until after polishing. It appears as a darker area of the surface and is easy to spot when viewed under light bounced off a piece of white paper. Because firestain is below the surface, there's no easy bench tip solution. Depletion gilding may work for some pieces. Otherwise, removing it calls for sandpaper and aggressive polishing.

A much better approach for a piece that will require a large number of solderings is to protect the metal from developing firestain by applying liberal coats of a firecoat. Regular soldering flux will provide some protection but will not be as effective as preparations made specifically for the task.

=====

'Get all 101 of Brad's bench tips in "Bench Tips for Jewelry Making" on Amazon'  
[www.amazon.com/dp/0988285800/](http://www.amazon.com/dp/0988285800/)

---

## Zion National Park, Utah

Almost 12,000 years ago Zion's first peoples, who are now almost invisible, tracked mammoth, giant sloth, and camel across southern Utah. Due to climate change and overhunting these animals died out about 8,000 years ago. Humans adapted by focusing on mid-sized animals and gathered foods. As resources dwindled 2,600 years ago, people tuned lifeways to the specifics of place. Such a culture, centered on Zion, differentiated over the next 1,500 years into a farming tradition archaeologists call Virgin Anasazi.



Zion's geology provided these and later pioneer farmers a combination rare in the desert: a wide, level place to grow food, a river to water it, and an adequate growing season. On the Colorado Plateau, crops grow best between 5,000 and 7,000 feet, making Zion's elevations — 3,666 to 8,726 feet — almost ideal. Differences in elevation also encourage diverse plants and animals; mule deer and turkey wander forested plateaus; bighorn sheep and juniper prosper in canyons.

The Anasazi moved southeast 800 years ago, due probably to drought and overuse. Soon after, Paiute peoples brought a lifeway fine-tuned to desert seasons and thrived. In the 1860s, just after settlement by Mormon pioneers, John Wesley Powell visited Zion on the first scientific exploration of southern Utah. By hard work and faith, pioneers endured in a landscape that hardly warranted such persistence. Flash floods destroyed towns and drought burned the crops. Only the will to survive saw Paiute, Anasazi, and European descendants through great difficulties. Perhaps today Zion is again a sanctuary, a place of life and hope.

Located in Washington, Iron, and Kane Counties in southwestern Utah, Zion National Park encompasses some of the most scenic canyon country in the United States. Within its 229 square miles are high plateaus, a maze of narrow, deep, sandstone canyons, and the Virgin River and its tributaries. Zion also has 2,000-foot Navajo Sandstone cliffs, pine- and juniper-clad slopes, and seeps, springs, and waterfalls supporting lush and colorful hanging gardens.

With an elevation change of about 5,000 feet—from the highest point at Horse Ranch Mountain (at 8,726 feet) to the lowest point at Coal Pits Wash (at 3,666 feet), Zion's diverse topography leads to a diversity of habitats and species. Desert, riparian (river bank), pinyon-juniper, and conifer woodland communities all contribute to Zion's diversity. Neighboring ecosystems - the Mojave Desert, the Great Basin, and the Rocky Mountains - are also contributors to Zion's abundance.

The park has more than a 1,000 species of plants ranging from tall, graceful cottonwoods growing along the river to towering pines and firs shading the higher elevations. Prickly pears, cholla, and yucca are among Zion's desert-adapted plants. The hanging gardens support brilliantly-colored Zion shooting-stars, scarlet monkeyflowers, and Western and golden columbines.

Zion's plant communities, in turn, provide food, shelter, and nesting places for Zion's diverse wildlife.

---

Zion, continued from page 7

There are approximately 67 species of mammals, 29 species of reptiles, 7 species of amphibians, 9 species of fish, and 207 species of birds. Endangered California condors soar above the cliffs of Zion; threatened Mexican spotted owls - Zion has the highest density of these owls breeding in the state - live and raise their young in Zion's narrow canyons.

The geologic formations of Zion - formed over approximately 250 million years - record periods of time when this area was covered by a shallow sea; when huge, sluggish rivers, bordered by swampland, meandered across the landscape; and when a vast desert - perhaps the largest on the planet - covered the region. The sand dunes of this desert are now Zion's famous sculpted and colorful 2,000 foot cliffs.

Immutable yet ever changing, the cliffs of Zion stand resolute, a glowing presence in late day, a wild calm. Melodies of waters soothe desert-parched ears, streams twinkle over stone, wren song cascades from red rock cliffs, cottonwood leaves jitter on the breeze. But when lightning flashes water falls erupt from dry cliffs, and floods flash down waterless canyons exploding log jams, hurling boulders, croaking wild joyousness, and dancing stone and water and time. Zion is alive with movement, a river of life always here and always changing.

Everything in Zion takes life from the Virgin River's scarce desert waters. Water flows, and solid rock melts into cliffs and towers. Landscape changes as canyons deepen to create forested highlands and lowland deserts. A ribbon of green marks the river's course as diverse plants and animals take shelter and thrive in this canyon oasis. From the beginning people sought this place, this sanctuary in the desert's dry reaches. The very name Zion, a Hebrew word for refuge, evokes its significance.

<http://www.nps.gov/zion/index.htm>





## Upcoming Events

**Sunday, Jan. 4, 2015**

**State Line Gem & Mineral Society**

monthly meeting

**2:00 p.m.**

201 W. Main St.

Morenci, MI 49256

**March 20 - 22, 2015**

**Jackson, MI**

Michigan Gem & Mineral Society presents

It's a Hard Rock Life!

Jackson County Fairgrounds

American One Event Center

200 West Ganson

**April 11 - 12, 2015**

**Columbus, OH**

Frozen: Ohio's Ice Age

41st Annual Central Ohio

Mineral, Fossil, Gem & Jewelry Show

Sponsored by

Columbus Rock and Mineral Society

Northland Performing Arts Center

4411 Tamarack Blvd.

**May 1 - 3, 2015**

**Kalamazoo, MI**

Kalamazoo Geological & Mineral Society

Rock, Gem, Fossil, Jewelry & Mineral Show

Kalamazoo County Expo Center

2900 Lake St





# Rock Trails

Sandy Gerhart, Editor  
210 Chestnut St.  
Adrian, MI 49221

Meetings are held the  
first Sunday of each month  
at 2:00 PM  
at 201 W. Main St.,  
Morenci, MI 49256

