



Grindings

Idaho Gem Club, Inc.

P.O. Box 8443  Boise, Idaho 83707-2443

VOL 86 NO 1

JANUARY 2025

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PRESIDENT'S MESSAGE

Hello Gem Club Rockhounds.

2025 is here and there are many adventures ahead of us. Many field trips this year are to new locations for new gems and rocks, and some fossils.

On Saturday, Jan. 11th we had a great turnout for the bag filling workshop. We filled 613 bags this year. We need everyone to get those tumblers rolling for next year's bag filling. The bags are a great money maker for our club at the Gem Show, plus \$125 for every 5-gallon bucket helps cover the cost of grit.

This is the last week to get tickets for our Awards Banquet on Jan. 21st. Get your tickets by Friday, Jan. 17th, at Stewart's Gem Shop. Our Banquet starts at 5:30 with a no-host bar and visiting with good friends. Dinner will be served at 7 pm. There will be a short meeting by the President and our Master of Ceremony, Brent Stewart. The Riverside Hotel is a nice venue for our Banquet and dinner, so come join us for a great evening to start off our year of gem club adventures.

If you are interested in doing a showcase at our gem show, please contact me, Rick Corbett, with your request. We still have regular cases and black light cases to fill. Set-up for our show starts at 8 am, Friday, February 21st at the Expo Idaho. After set-up, we can fill our display cases. Don't forget your keyed locks and glass cleaner. The show starts Saturday morning at 10 am. Get signed up for the many position available to work at the show. Show hours are Saturday 10 am-6 pm and Sunday 10 am-5 pm. Then it's all hands on deck to tear down the show and put it all back into the trailers.

We have many vendors and opportunities to buy many unique items, from gems and rocks to tools. It is one of the largest and best gem shows in the northwestern United States, so don't miss this opportunity to be a part of it. I'm looking forward to seeing every one of you there. Please let me or any board member know if you have questions about our gem show. We're here to help.

The following week our sister club, the Owyhee Gem and Mineral Society, is having their gem show in Caldwell at the O'Connor Field House. It starts Saturday, March 1, at 10 am and is always a fun time.

It's show time! Fun times for rockhounds.

*Respectfully Submitted,
Rick Corbett, President*

MEETING AGENDA

No-Host Bar
Dinner
General Meeting
Installation of Officers

The deadline for issues is the Friday after each Board Meeting for the current month's edition. To submit articles, please send them through email to Dana Robinson, Editor drobinso@boisestate.edu

ACTIVITY CALENDAR

JANUARY

SUN	MON	TUE	WED	THU	FRI	SAT
			1 New Year's Day	2	3	4
5	6 ROLE* Workshop 6-8:45 pm	7 Board Meeting 7 pm	8	9	10	11 Grab Bag Stuffing Party 10:00 am
12	13	14	15	16	17	18
19	20 ROLE* Workshop 6-8:45 pm	21 Annual Banquet 6:30 pm	22	23 Workshop 6-8:45 pm	24	25
26	27	28	29	30	31	

FEBRUARY

SUN	MON	TUE	WED	THU	FRI	SAT
						1 Workshop 10 am-2 pm
2	3 ROLE* Workshop 6-8:45 pm	4 Board Meeting 7 pm	5	6	7	8
9	10	11	12	13	14	15
16	17 ROLE* Workshop 6-8:45 pm	18 General Meeting 7 pm	19	20 Workshop 6:45-8 pm	21 Gem Show Set-Up 8 am, Expo	22 Gem Show 10 am-6 pm
23 Gem Show 10 am-5 pm -- Tear Down	24	25	26	27	28	

MARCH

SUN	MON	TUE	WED	THU	FRI	SAT
						1 OGMS Gem Show 10 am-5 pm
2 OGMS Gem Show 10 am-4 pm	3 ROLE* Workshop 6-8:45 pm	4 Board Meeting 7 pm	5	6	7	8
9	10	11	12	13	14	15
16	17 ROLE* Workshop 6-8:45 pm	18 General Meeting 7 pm	19	20 Workshop 6-8:45 pm	21	22
23 30	24 31	25	26	27	28	29 Workshop 10 am-2 pm

APRIL

SUN	MON	TUE	WED	THU	FRI	SAT
		1 Board Meeting 7 pm	2	3	4	5
6	7 ROLE* Workshop 6-8:45 pm	8	9	10	11	12
13	14	15 General Meeting 7 pm	16	17 Workshop 6-8:45 pm	18	19
20	21 ROLE* Workshop 6-8:45 pm	22	23	24	25	26 Workshop 10 am-2 pm
27	28	29	30			

*To participate in the ROLE workshops, you must complete your first level in the general workshops.



Upcoming Events

Idaho Gem Club Gem, Mineral & Fossil Show, February 22-23, 2025. Sat 10 am-6 pm, Sun 10 am-4 pm. Expo Idaho, 5610 W Chinden Blvd, Boise, ID

Owyhee Gem & Mineral Society Gem, Mineral & Fossil Show, March 1-2, 2025. Sat 10 am-6 pm, Sun 10 am-4 pm. O'Connor Field House, Caldwell, ID

WORKSHOPS

See the calendar for upcoming workshop dates. Come cut your rocks and learn cabochon making. Brent Stewart, Rick Corbett, and Liz Warner keep the club lapidary workshop operating year round.

Third Thursday of each month from 6:00 pm-8:45 pm
 Saturday the week after general meeting — 10:00 am-2:00 pm
 ROLE Workshops are the First and Third Mondays —
 6:00 pm-8:45 pm

WORKSHOP LOCATION

2620 W. Idaho St., Boise, ID
 Next door to Stewart's Gem Shop
 \$5 Fee for each visit (kids free)



PROJECT OF THE YEAR WINNERS

Congratulations to Willa Renken for winning the Project of the Year competition. The design is very unique and beautiful!



Congratulations are also given to Boulton Blaine for winning the Junior Project of the Year competition. Great job!

2025 GEM CLUB BANQUET

IDAHO GEM CLUB ANNUAL DINNER BANQUET JANUARY 21, 2025

Riverside Hotel
 2900 W. Chinden Blvd., Garden City

5:30 pm No Host Bar
 7:00 pm Dinner

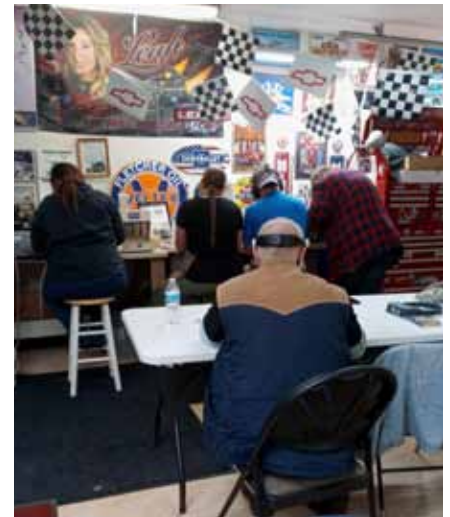
TICKETS ON SALE NOW!!

- ★ Enjoy a Delicious Dinner
 - ★ Special Door Prizes
 - ★ Table Centerpiece Drawing
 - ★ Installation of Officers
 - ★ Special Recognition
 - Awards
- A Winner at Every Table!*



Thanks are also given to all participants who entered. This year saw the most entries we've had in some time. It was great to see what everyone has been working on throughout the year!

CHRISTMAS PARTY WORKSHOP



GRAB BAG STUFFING PARTY

We had a great turnout for the Grab Bag Stuffing Party. Thank you to all who sewed bags, tumbled stones and helped stuff the bags. We filled 613 total bags!



IGC LIBRARY

Our Club Library will be open during the general meetings. Take a look at the books, magazines and videos available for check-out. New issues of *Rock & Gem Magazine* are added monthly.

If you have any books you would like to donate, you may bring them in a bag marked for the Librarian and leave them on top of the library cabinet. If you have questions, please contact Tia Call at tcall76@yahoo.com.



IDAHO MUSEUM OF MINING AND GEOLOGY

Bruneau Fossil Reef: Geologic Field Trip

Investigate the geology of Fossil Reef and Horse Hill with guide Steve Schaps. This area is 80 miles from Boise and has a lot of fossils, petrified wood, and Moqui Balls.

We will meet in the Albertson's Shopping Center parking lot, near McDonald's Restaurant, at 10am. The address is 6574 S. Federal Way. From here Steve will facilitate carpools. We will need some people with higher clearance vehicles to be carpool drivers, especially people with Trucks, 4WD, or AWD vehicles. There will be a limit on cars and people, but there are two field trips.

Dates

January 18th, 10 am to 4 pm

or

February 1, 10 am to 4 pm

Admission:

Adult Museum Members & children — Free
Adult Non-members — \$20 plus Eventbrite fee
Full refund if the Museum cancels due to weather.

Pre-registration is required at:

<https://www.eventbrite.com/e/copy-of-bruneau-fossil-reef-geologic-field-trip-tickets-1119248716039?aff=oddtcreator>

Contact operations@idahomuseum.org for questions.

Sponsored by Idaho Museum of Mining and Geology
2455 Old Penitentiary Rd.
Boise, Idaho

ANNUAL GEM SHOW SIGN-UP TIME

It is time to jump on board and participate in the show by signing up for the different events we have. There is a Wheel of Fortune, Garnet Dig, Grab Bag Sales, Basket Raffle, Silent Auction, Club Merchandise Sales, Scholarship Fundraiser Sales, Hospitality Table at the front door directing visitors, and Entry Ticket Sales that all need volunteers! We need to assemble a good crew for setting up the tables, Black Light Room, and Display Cases. Please get involved and help us out. This show is a regional favorite and we expect a big turnout. This is a fun way to learn more about rocks, meet fellow members and the community. Sign-up sheets will be available at meetings. You may also call the chairpeople to get added on the lists.

Our annual show will be held February 22 and 23, 2025 at Expo Idaho.

Schedule:

Friday, February 21, 8:00 am to 6:00 pm. Show Set Up at Expo

We need volunteers to unload the trailers and set up the entire show, including display cases, dealer tables, blacklight room, demonstration area tables, and tables for the various Club Events. Please plan on giving a few hours or more helping the club bring this great Gem Show to life.

Saturday February 22 10:00 am-6:00 pm Show is open.

All stations need full volunteer schedules.

Sunday February 23 10:00 am-5:00 pm Show is open.

All stations need full volunteer schedules.

Sunday at 5:00 pm-8:00 pm Show Tear Down.

Volunteers needed to disassemble show and load everything back into trailers. We can't do it without you!

Members are encouraged to contact Rick Corbett to reserve a display case where you can show off your treasures to the public. You may install your case during the afternoon on Friday. You must have the glass door fronts on and secured by Saturday's door opening at 10:00 am.

SUNSHINE LADY REPORT

By Deana Ashton

IGC Sunshine Lady sends cheerful greetings to club members needing get well wishes, sympathy and anniversary expressions. If you know someone in need of cheer or attention, please text or call Deana at 208-794-5628.



**DISPLAY CASE APPLICATION FOR 2025
IDAHO GEM CLUB ANNUAL GEM & MINERAL SHOW**

NAME: _____

PHONE NUMBER: (_____) _____

ADDRESS: _____

CLUB MEMBER: _____

NON-MEMBER: _____

NUMBER OF CASES: _____

CLUB'S: _____ OWN: _____

MATERIAL IN CASES: _____

INSIDE DIMENSIONS OF CLUB CASES ARE 46.5" WIDE BY 22.5" DEEP
BY 22.5" HIGH.

**LINERS AND LOCKS WILL NOT BE PROVIDED (BRING YOUR OWN).
ALSO BRING GLASS CLEANING SUPPLIES FOR CASE FRONTS.**

RETURN APPLICATION TO **RICK CORBETT** AT 930 E. BERGESON DR.,
BOISE, ID 83706 or CONTACT HIM AT 208-890-2599

CASE SET UP: FRIDAY, FEBRUARY 21ST, AFTER 1:00 P.M.

SHOW DATES: FEBRUARY 22ND-23RD

DIAMOND INCLUSIONS

What are Diamond Inclusions?

A flawless diamond is pure carbon arranged in a crystal lattice that is essentially free of any other minerals. Inclusions are the materials that get encapsulated inside the diamond during its formation process in the mantle. The range of impurities possible is quite large: small diamonds and other gem crystals such as sapphire and garnet, as well as other minerals and fluids like water. Disruptions or breaks within the carbon lattice such as feathers, twinning wisps and graining are also considered inclusions.

Since diamonds have high strength and low reactivity with either the inclusion or the volcanic host rocks which carry the diamond to the Earth's surface, the diamond serves as a container that preserves the included material intact.



Garnet inclusion in the host diamond.

Inclusion Types

The most common inclusions in a diamond are crystals, clouds, feathers, twinning wisps, pinpoints and graining.

Types of inclusions include silicates (e.g. garnet, silicate perovskites), oxides, sulfides; fluids (containing carbonates, silicates, etc.), water, brines; Multiphase, which are fluid inclusions coexisting with mineral inclusions in the same diamond.

Inclusions can help distinguish lab-grown diamonds from natural diamonds. For instance, inclusions such as knot, twinning wisps, diamond crystals, or other minerals are evidence of the stone being a natural diamond.

Most included crystals are a smaller diamond crystal, which appear white or transparent, but they might also be crystal of other minerals – such as garnet or peridot which appear colored.

A *knot* is an included diamond crystal that extends to the surface. A *cloud* is a collection of pinpoints, needles and crystals. A *twinning wisp* is a series of pinpoints, clouds or crystals that appear flat and ribbon-like and forms in a diamond's twinned growth plane.

Mineral Inclusions

Mineral inclusions, especially the silicate inclusions in lithospheric diamonds, can be classified into two dominant types depending on the rocks of the host diamond: eclogite (E-type) and peridotite (P-type). These are the two main

parental rocks for the diamond formation which mostly lead to silicate inclusions. Each type of inclusion can be distinguished based on the content of specific materials in the trapped mineral. For instance, in garnet inclusions, the content ratio of chromium oxide and calcium oxide can be the basis for the classification. E-type garnet inclusions contain less chromium oxide while P-type contains less calcium oxide. Trace elements such as rare earth elements can also characterize P-type and E-type garnet inclusions. Similarly, nitrogen inclusions can be classified into P-type and E-type inclusions by analyzing their stable isotopes. For sulfide inclusions, osmium contents from rhenium-osmium dating can differentiate P-type and E-type inclusions.

The timing of mineral crystallization can be used to categorize diamond inclusions into three types: protogenetic, syngenetic, and epigenetic inclusions. Minerals in the *protogenetic* inclusions were crystallized earlier than the diamond formation. The host diamond encapsulated pre-existing minerals during its crystallization. For *syngenetic* mineral inclusions, the crystallization of the trapped mineral and the diamond occur at the same time. Syngenetic inclusions impose the host diamond morphology on the trapped mineral. *Epigenetic* inclusions are formed from minerals that crystallized after the diamond formation. These minerals can crystallize along diamond fractures or the pre-existing protogenetic/syngenetic inclusions may have been altered into new material.

Mineral inclusions can preserve materials formed under the extreme environments in Earth's mantle back to surface conditions. This enables the discovery of the natural form of minerals which have previously been only synthesized in the laboratory. For example, the natural calcium silicate perovskite was recently given the mineral name *davemaoite*, when it was discovered as a mineral inclusion in a diamond. The discovery was surprising due to the extreme conditions necessary to synthesize *davemaoite* making it seem unlikely that it could be preserved at the Earth's surface.

Fluid Inclusions

Fluid inclusions trap fluids containing materials like silicates, carbonates and hydroxyl groups, water and brine. Such fluid inclusions can be found in coated diamonds (monocrystalline diamonds coated by polycrystalline diamonds with fluid inclusions) and fibrous diamonds (diamonds coated by rods or blades of diamonds with fibrous structures). Fluid microinclusions mostly contain silicate-carbonate or halide-carbonate assemblages. Subduction-derived saline fluids

with a high concentration of K and Cl can be found from microinclusions in the cloudy diamonds. Saline and silicic fluid inclusions do not co-exist.

In 2018, the high-pressure form of water known as ice-VII was found in a diamond inclusion. This discovery suggests the presence of water-rich fluids in the transition zone.

Multiphase Inclusions

In the diamond-forming conditions of high pressures and temperatures, hydrous silicate melt and the aqueous fluid make a single-phase supercritical mixture. This mixture forms fibrous, cloudy, or polycrystalline diamonds with multiphase inclusions. Multiphase inclusions host fluids (mainly containing carbonates and silicates, high density aqueous fluids, and brines) and the mineral inclusions in the same diamond.

Concrete vs Transparent Inclusions

Some diamond inclusions, such as crystals, can be very concrete in nature. They have a well-defined shape and are commonly opaque. Other inclusions such as clouds, twinning wisps and graining are amorphous in nature and are often very transparent. As such, most people prefer these type of inclusions to more concrete and easier to see types.

Less Common Diamond Inclusions

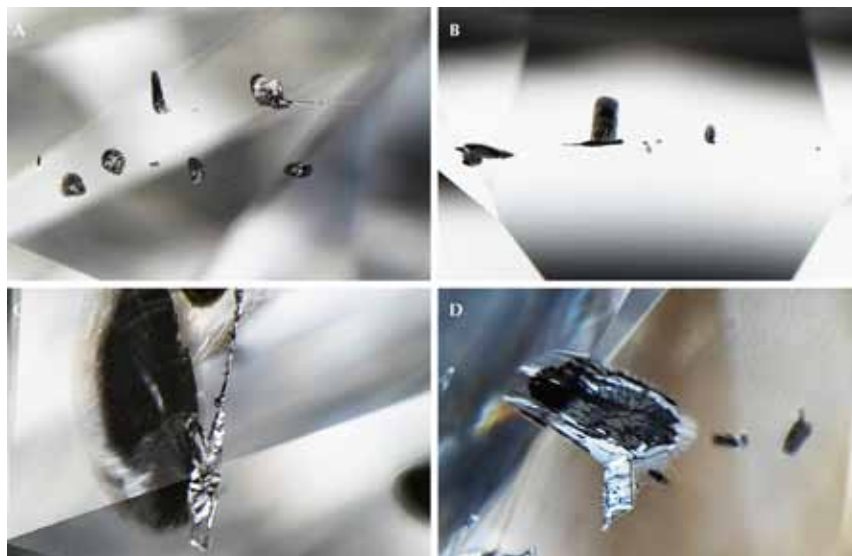
There are a number of inclusions that are less frequently seen in high quality diamonds such as cavities, knots, and etched channels.

Cavities are just what the name implies: a hole or divot at the surface of a diamond that appears to have been “scooped out”. Cavities are often associated with knots, which are crystals that come to the surface. In some cases they can be dislodged, leaving a cavity. With diamonds it is not so easy to dislodge a knot, especially if it is well imbedded in the diamond. It is unlikely that a knot will come out leaving a cavity during wear. This usually happens during the cutting process.

An etched channel is a linear cavity caused by chemical processes during formation. Like cavities, if they are small enough they are not a significant issue. However, they can sometimes increase durability risk depending on their size and location. They can also trap dirt, possibly making them more visible over time. A professional cleaning will remove the buildup, but cavities and etched channels can be difficult to clean at home.

Interesting Crystal Inclusions

There are any number of other minerals and crystals that can be trapped inside a diamond during formation. Sapphires, rubies and garnets are not uncommon to see. Sometimes they are quite beautiful under magnification. And a really good specimen adds collector value to folks who love such rarities.



GEM CLUB OFFICERS

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MINUTES OF THE IDAHO GEM CLUB GENERAL MEETING DECEMBER 17, 2024

The meeting was called to order at 7:14 by Rick Corbett and the Pledge of Allegiance was recited. Becky drew winning door prize tickets for 5 juniors and 9 adults.

Rick asked for any corrections to the minutes as printed in the *Grindings*. Liz made a motion to accept the minutes, Coyote seconded, the membership voted and the motion carried with one opposed.

Treasurer Report: No report. Please talk to a board member with any questions.

Federation Report: Debbie reminded everyone to turn in stamps to be taken to the NFMS meeting. It benefits scholarships.

Field Trip Report: We have a new field trip guide. Brandon has many ideas for next year's trips. He will have a list soon. Contact him with any ideas.

ROLE Report: Liz explained the admission process for the ROLE program. It is going well with a full workshop Monday.

Workshop Report: The next general workshop is Dec. 19th. The Christmas workshop is on Saturday and Sunday, Dec. 21st and 22nd. It is a pot luck and there will be wire wrapping in the house. Please bring some folding chairs if you can.

Brent went over the upcoming workshop dates. The next ROLE workshops will be Jan. 6 and 20th, 6-8:45 pm. The next general workshops are Saturday, Dec. 28 from 10 am-2 pm, Jan. 23, 6-8:45 pm and Feb. 1, 10 am-2 pm.

Old Business: Showcases need filling for the show so get signed up with Rick as soon as you can. Also, Banquet tickets need to be purchased so a final count can be sent to the venue.

Show sign-up sheets are on the front table. We need to have the various events covered to provide a great show. Set-up is on Friday, Feb. 21st, 8 am at Expo Idaho.

New Business: The Project of the Year entries are on the front table and the Juniors Projects are on the side table. Check them all out and place your vote. While votes were counted, Juniors were excused to their class.

The winner of the Adult division is #2, Willa Renken.

The winner of the Junior division is #5, Bouton Blaine.

Congratulations to you both!

Rick welcomed 7 guests who introduced themselves.

Meeting was adjourned at 8:02 pm for the auction.

Respectfully submitted, Dana Robinson, Secretary

**MINUTES OF THE IDAHO GEM CLUB
BOARD MEETING
JANUARY 7, 2025**

Rick Corbett called the meeting to order at 7:00 pm.

Present: Rick Corbett, Willa Renken, Teresa Nebeker, Liz Warner, Terri Frostrom, Cordell Blaine, Brent Stewart, Lynn Hansen and Jason Smith

Excused: Dana Robinson, Deana Ashton, and Debbie Mitchell

Guest: Brandon Favreau

Rick asked for any corrections to the minutes as printed in the *Grindings*. Willa made a motion to accept the minutes, which was seconded by Jason. Board members voted, the motion carried.

Treasurer Report: Teresa went over the financial statements for deposits and disbursements. Forty-one banquet tickets have been sold and 15 life members, with 56 total so far.

Workshop Report: Brent went over upcoming workshop dates for January and February. The next ROLE workshop will be Jan. 20, 6-8:45 pm. The regular January workshops will be on the 23rd from 6-8:45 pm, and Feb. 1st from 10 am-2 pm. February ROLE workshops are on the 6th and 20th, 6-8:45 pm. The regular February workshop is on Feb. 20th, 6-8:45 pm.

Banquet Report: Terri and Rick will set up the room at 5 pm. The no-host bar will open at 5:30 pm with dinner at about 7 pm.

Old Business: The grab bag filling party is this Saturday, January 11th at 10 am.

New Business: The March 1st Saturday workshop will be cancelled for Caldwell show.

There were seven new member applications this month. Jason made a motion to accept the new members, Liz seconded, the board voted and the motion carried.

Meeting adjourned at 8:30 pm.

Respectfully submitted, Dana Robinson, Secretary

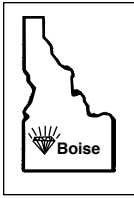


THE GRINDINGS

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CHECK OUT THE CLUB WEBSITE!

www.idahogemclub.com



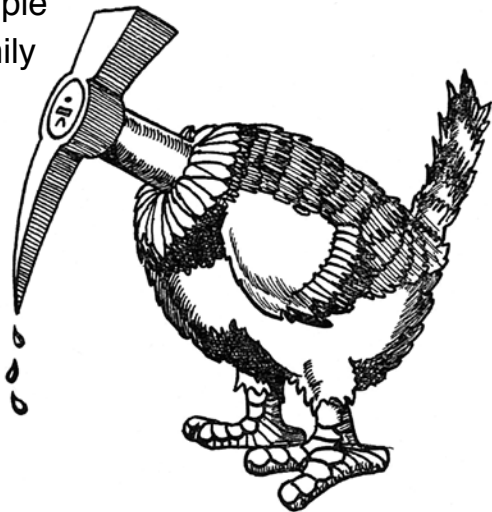
Idaho Gem Club, Inc.
P.O. Box 8443
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RETURN SERVICE REQUESTED

The purpose of the Idaho Gem Club is to promote mutual, educational and scientific interests and benefits of it's members in mineralogy, geology, gemology, the art of lapidary and kindred arts and sciences. Applications and/or renewals may be sent to the Idaho Gem Club, P.O. Box 8443, Boise, ID 83707-2443.

Dues:
\$22.00 individual
\$25.00 couple
\$28.00 family

Subscription only:
\$10 per year



GENERAL MEETING:
3rd Tuesday of every month: 7:00 p.m.

BOARD MEETING:
1st Tuesday of every month: 7:00 p.m.

ADDRESS:
Maple Grove Grange
11692 W. President Dr., Boise

