



# MONTANA GEOLOGICAL SOCIETY

## NEWSLETTER

Vol 67 No. 1



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Our President discusses the most recent MGS events and upcoming scholarship opportunities.



#### **P4 / MEET OUR SECRETARY**

Read a biography of our new MGS Secretary, Jacob Thacker. Welcome to the Officer Team!



#### **P5 / GIFT GUIDE**

Take a peek at the first ever MGS Gift Guide! Find all the best gifts for the holidays & 2023!



#### **P8 / SCHOLARSHIP**

Applications are open for the annual MGS Scholarship, and must be submitted by Feb 28.



Contact Us:

[mtgeo.org](http://mtgeo.org) / [montanageologicalsociety@gmail.com](mailto:montanageologicalsociety@gmail.com)



*Add our email address to your contacts so your Newsletters & Luncheon announcements don't end up in Spam!*

PO Box 844  
Billings, MT 59103

# President's Letter

Season's Greetings MGS members!

The holiday season is upon us and as we take time in our personal lives to give thanks and reflect on the past year, we want to thank you all for supporting the MGS and our mission.

Our November happy hour at CJ's was well attended by professionals and three geology students from Rocky Mtn College. Dr. Yann Gavillot's presentation on neotectonics in the greater Bitterroot Valley generated lively and inquisitive questions and discussions. Thank you Dr. Gavillot for making the trip to Billings from Butte!

The long running tradition of the Oilies Christmas Party did not disappoint this year, as a healthy number of geologists, engineers, land professionals and significant others gathered at the Red Door in Billings on December 2nd. The food, libations, two-piece band and a special appearance from Kris Kringle all made for a fun evening of comradery and celebration. Thank you to all the sponsors who made this yearly tradition possible!

The changing of the calendar year means the MGS will be looking to grant scholarship awards to support Montana research and also select a K-12 earth science Teacher of the Year. If your sphere of influence includes students actively involved in geoscience research in Montana or you know of that special teacher, please make them aware of these opportunities.

Wishing you all a Merry Christmas, Happy Hanukkah, Happy Holiday Season!

Jim Suydam  
Geologist & MGS President

## 2022-2023 MGS Officers

*President*

*Jim Suydam 406-259-4124*

*Vice President/Speaker Coordinator*

*Michael Hofmann 406-926-1000*

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*Secretary*

*Jacob Thacker 406-896-5931*

*Past President*

*Spenser Kuhn 406-696-0268*

*Don't forget to...*

## Renew your MGS Membership!

*Use our convenient online renewal system at [mtgeo.org](http://mtgeo.org),  
or print & complete the renewal form at the back of the Newsletter!*



## Who's Who of the MGS

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Jessica Renstrom 208-2504

*When were rock puns  
the funniest puns of  
all time?*

*During the  
Stone Age.*

*Have something geological to sell,  
give, or find?*

*Place a free ad in our MGS Classifieds!*

Contact the Newsletter Editor for more information.

# Meet your new MGS Secretary *Jacob Thacker*



Jacob Thacker grew up in WY, OK, and OH, spending his formative years in Cody where his love for geology was born. He received his B.Sc. from Cleveland State University. For his M.Sc. at Montana State University he conducted a fault characterization on the Laramide South Prairie fault in the Stillwater Complex under Dr. David Lageson. His Ph.D. from the University of New Mexico under Dr. Karl Karlstrom involved examining the timing and kinematics of intracontinental deformation in the Laramide Rocky Mountains and San Andreas-influenced lower Colorado River corridor. He has worked as an intern in Yellowstone and for the USGS, logged core at Stillwater's East Boulder Mine as a Project Geologist with Childs Geoscience, and prior to his position at MSUB was a geologic mapper with the New Mexico Bureau of Geology. Jacob enjoys all things Greater Yellowstone related, on top of hiking, backpacking, and photography.

## Want to Share?

Do you have photos of MGS events,  
MGS members, or Montana geology?  
If so, we'd like to see them!

For a chance to have your photo featured in  
the MGS Newsletter & MGS Facebook page, please  
submit your  
high-resolution photograph(s) and full name to  
[montanageologicalsociety@gmail.com](mailto:montanageologicalsociety@gmail.com)

# MGS Gift Guide

*In need of a gift for your favorite geologist or rock-loving kiddo? Look no further!*

*We've compiled a list of some of the best gifts for you to peruse for the holidays and occasions in 2023 gift giving!*

*Click on the images to be directed to the shopping link.*



Elevation Science has partnered with Tyler Green, SFX artist extraordinaire and creator of MONSTER KIDZ BOX, to bring you an amazing, new activity to do when you're not in the field!

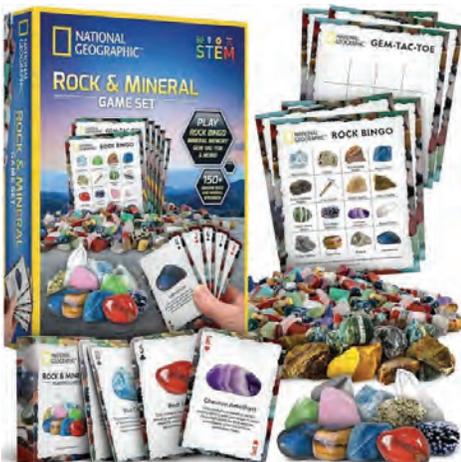
Molded from the REAL claw of 'Weird Al', the Allosaurus discovered in Montana in 2019, this one-of-a-kind kit allows you to have a cast of a real dinosaur in your home!

Each box includes everything you need to create your own display claw, plus some exclusive online activities, too.

We all know a rock hammer is a necessity. This heavy duty geological prospecting hammer with pointed tip, shock absorbing handle, and squared mining hammer is available at Scheels.

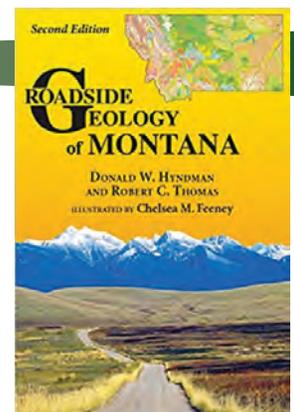


Perfect for use in sedimentary rock and digging small holes, this geo pick is the perfect addition to any geology lover's stocking.



Fun for the whole family!  
Several games using real rocks & mineral samples.

Featured in MGS Newsletter Vol66 No3, the Roadside Geology of Montana, Second Edition is the perfect gift for anyone planning to travel through Montana when the weather warms up.



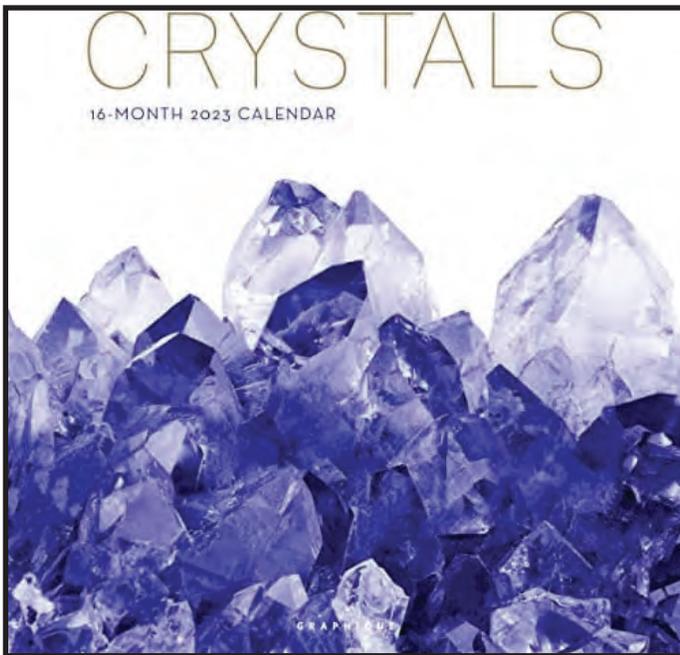
# MGS Gift Guide, *continued*



This attractive Rock Formations chart came from a 1920s encyclopedia.



This set of 13 engraved pencils make great gifts for bosses, friends, siblings, parents, & cousins.



Look forward to a shiny New Year each day on this 2023 Crystals calendar.



Perfect for a rock hunter & coffee enthusiast  
*(And isn't that all of us?)*

***And for the ultimate gift, keep an eye out for MGS Swag coming in 2023!***



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“Like” the Montana Geological Society to keep up-to-date with the MGS.



## Montana Geological Society 2022-2023 Annual Research Scholarships

### Purpose

The Montana Geological Society (MGS) is a non-profit organization created in 1949 "...to promote interest and research in geology and allied sciences and their practical application, and to encourage fellowship and cooperation among the members." This annual award supports these goals by providing financial assistance for up to two student dissertation, thesis, or senior projects involving Montana geology and by providing a venue for students to present their work to geology professionals in Montana.

### Award

Up to two scholarships, one for **\$2,000**, and one for **\$1,000**, may be awarded each year to the most qualified applicants. The successful applicants agree to present their research results at a luncheon meeting of the MGS in Billings, MT, and will receive reimbursement for travel expenses to and from Billings in addition to the scholarship amount.

### Basis of Award

All projects will be reviewed by a committee composed of Officers and Board Members of the MGS. The award will be made based on project merit, difficulty, and innovation appropriate for the applicant's educational level. Projects in the early to middle stages of research will receive preferential consideration over those at or near completion. The awards will only be made to fully qualified and deserving applicants, if any, as determined by the committee.

### Eligibility

Scholarships are available only to full-time students working toward a BA, BS, MS, or Ph. D degree in an accredited geology or earth science program at a Montana college or university. The research area must be based at least partially in the state of Montana.

### Application Packet

Applicants must submit **1.)** a **brief** cover letter that summarizes the applicant's educational background, current student status (B.S., M.S., Ph. D), anticipated graduation date, and research interests. Include name, mailing address, email address, and phone number, **2.)** a **short** (300 words or less), **concise** summary of their approved or proposed project that includes study area, purpose, and applicability of research to Montana geology, along with an advisor's signature, **3.)** a work flow timeline, and **4.)** an estimated itemized annual budget which specifies how the funds from this award will be used. The budget must include the amount and source of all other project funding.

### Deadlines

Applications can be emailed (preferred) or mailed. Emailed applications (as attached file(s) in any standard format) must be sent to [montanageologicalsociety@gmail.com](mailto:montanageologicalsociety@gmail.com) no later than 11:59 p.m., **February 28th**. Mailed applications must be post marked no later than **March 1<sup>st</sup>**, and should be addressed to: Montana Geological Society, PO Box 844, Billings, MT 59103. Awards will be announced and payment made in the form of a check to the successful applicant no later than **April 15<sup>th</sup>**.

# Application Form for Montana Geological Society K-12 Earth Science Teacher of the Year Award\*

*\*\$1000 award for successful applicant and eligibility to apply for additional awards up to \$8000 through the American Association of Petroleum Geologists (AAPG)*

## Qualifications for Nomination

Teaching must be at a Montana accredited school, any level from K-12.

Minimum 3 years teaching experience.

Teach at least one unit per year on natural resources, defined as:

- 1) Organic materials such as petroleum, natural gas, and coal,
- 2) Inorganic substances such as mineral ores, building stone and aggregates,
- 3) Energy resources from the earth such as geothermal energy.

Teaching should relate to the scientific study of natural resources, and may include their origin, extraction, historic use, and present use.

Teaching should also include the use of earth science for decision making related to the preservation of the environment, reclamation, and conservation of resources.

## Teacher Contact Information

Name of Teacher	
School	
School Address	
City ST ZIP Code	
Home Phone/Work Phone	
E-Mail Address	

## Teacher Information

Current Position	
Grades Taught	
Number of Years Teaching	
Degree(s) Earned	

## Letter of Support

Name	
Phone Number	
Email Address	
Relationship to Nominee	

## **Applicant's Statement**

Please attach a short, succinct statement (no more than 500 words) describing your qualifications. In the statement, please discuss, with regard to the natural resources unit, your:

- Teaching philosophy
- Methods
- Course content
- Creative or innovative projects
- Ability to balance economic, societal, and environmental issues
- Objectivity
- Class size(s)

## **Letter of Support**

Include one letter of support from an administrator, fellow teacher, or other person/organization familiar with your teaching philosophy and style. The letter should describe the applicant's qualifications as "Teacher of the Year" in Earth Sciences. We are particularly interested in what the applicant does to promote geologic education and increase student interest in geology. The statement should include the applicant's name, be signed by the letter's author, and should be returned with the rest of this application form.

MGS can accept applications in any standard format by email to:

[montanageologicalsociety@gmail.com](mailto:montanageologicalsociety@gmail.com)

**2023 Deadline: Nominations must be RECEIVED by midnight, April 30, 2023**

**MGS expects an award to be made by May 15, 2023.**

# Become an MGS Sponsor

**If your business would like to help the MGS further its mission in the New Year,  
consider becoming an MGS Sponsor!**

\*As an Annual Sponsor, businesses obtain the following perks:

- Custom ads included in each issue of the MGS Newsletter (minimum of 6 issues per year);
- Company logo or name included in a slide at the beginning of each MGS talk;
- Company logo or name and links to the sponsor's websites on the new "Sponsors" page of the MGS website;
- An annual posting of appreciation on the MGS Facebook page, with links to the sponsor's preferred social media page or website.

Rates for MGS Sponsorship are listed below. To become a sponsor or request more information, please email the MGS at [montanageologicalsociety@gmail.com](mailto:montanageologicalsociety@gmail.com)

**Diamond Sponsor:** (Full Page ad) - \$65.00/month (\$780/year, paid annually)

**Gold Sponsor:** (Half Page) - \$35.00/month (\$420/year, paid annually)

**Silver Sponsor:** (Quarter Page) - \$18.75/month (\$225/year, paid annually)

**Bronze Sponsor:** (Business Card) - \$8.50/month (\$102/year, paid annually)

*Interested in advertising, but not ready for Sponsorship?*

You can still advertise with the MGS without becoming an Annual Sponsor.

To advertise in a single issue of the Newsletter, rates are as follows:

Full Page - \$100/issue

Half Page - \$50/issue

Quarter Page - \$25/issue

Business Card - \$10/issue



# MONTANA GEOLOGICAL SOCIETY

PUBLICATION	QUANTITY	PRICE	TOTAL
2006 Montana Oil & Gas Fields CD		\$65.00	
2006 AAPG Datapages - MGS Publications DVD		\$180.00	
2006 AAPG Datapages - MGS Publications DVD (MGS Member price)		\$150.00	
2000 50th Anniversary Symposium		\$20.00	
1999 Thrust Systems of the Helena Salient		\$20.00	
1998 8th Int'l Williston Basin Symposium		\$20.00	
1998 8th Int'l Williston Basin Symposium Core Workshop		\$20.00	
1997 Big Horn Basin Symposium		\$20.00	
1997 MGS-TRGS: The Edge of the Crazyes		\$20.00	
1997 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1996 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1993 Energy and Mineral Resources of Montana		\$20.00	
1991 6th International Williston Basin Symposium		\$20.00	
1991 Geology & Horizontal Drilling of the Bakken		\$20.00	
1991 AAPG - RMS Field Trip: Beartooth Mountains		\$7.50	
1991 AAPG - RMS Field Trip: Eagle Sandstone, Billings		\$7.50	
1991 RMS Field Trip #1 Nye-Bowler Linemont		\$7.50	
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1990 Bakken Workshop Short Course Study Notes #1		\$10.00	
1989 Geologic Resources of Montana		\$20.00	
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1985 Montana Oil & Gas Fields		\$20.00	
1971 Stratigraphic Names of Montana		\$10.00	
1969 Economic Geology of Montana		\$20.00	
<b>Shipping and Handling charges - \$5.00 per CD/DVD \$8.00 per book</b>			
<b>Total Due</b>			

**Billing / Shipping Information**

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**MONTANA GEOLOGICAL SOCIETY**

**P.O. Box 844**

**Billings, MT 59103**

**Membership Renewal**

**Last Name** \_\_\_\_\_

**First Name** \_\_\_\_\_ **Middle Initial** \_\_\_\_\_

**ANNUAL DUES:**

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\_\_\_\_\_ **\$10.00 Student**

\*\*\*\*\*

**Please update the information below if needed. Please leave blank if nothing has changed:**

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**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

**Phone (w)** \_\_\_\_\_ **Phone (h)** \_\_\_\_\_ **Phone (c)** \_\_\_\_\_

**E-Mail** \_\_\_\_\_

**AAPG Member (please circle) YES NO**

**Education (School, Degree, Year)**

**Degree #1** \_\_\_\_\_

**Degree #2** \_\_\_\_\_

**Degree #3** \_\_\_\_\_