May 2020

E-NEWS

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Snow Canyon, Utah
Photo courtesy of Holly Walker

This edition of E-News was edited by Emily Kam.
About E-News

AWG E-News is a monthly publication distributed the last week of each month.

How do I get my update included in the E-News?
Updates for E-News must be submitted to Enews@Awg.org by the 3rd Friday of the month.

How do I advertise in the E-News?
For information on advertising with AWG, please visit AWG.org/Advertise or email Ads@AWG.org.

How do I unsubscribe from the E-News?
Please email Office@AWG.org.

About AWG

The Association for Women Geoscientists (AWG) is devoted to enhancing the quality and level of participation of women in geosciences and introducing girls and young women to geoscience careers.

Our diverse interests and expertise cover the entire spectrum of geoscience disciplines and career paths, providing unexcelled networking and mentoring opportunities. AWG members are brought together by a common love of earth science and the desire to ensure rewarding opportunities for women in the geosciences.

Visit AWG.org to join!

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Mail to: Kate Johnson, AWGF Treasurer, 652 Glimmgerlen Road
Cooperstown, NY 13326
Or donate online at www.awg.org

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HOME
Recommended Reads

“Dr. Sharon Mosher Recognized as the 2020 Marcus Milling Legendary Geoscientist” The American Geosciences Institute (AGI) is pleased to recognize Dr. Sharon Mosher, Professor and William Stamps Farish Chair in Geology at the Jackson School of Geosciences at the University of Texas at Austin (UT), with the 2020 Marcus Milling Legendary Geoscientist Medal. [https://www.americangeosciences.org/news/dr-sharon-mosher-recognized-2020-marcus-milling-legendary-geoscientist](https://www.americangeosciences.org/news/dr-sharon-mosher-recognized-2020-marcus-milling-legendary-geoscientist)

“Pandemic Makes Evident ‘Grotesque’ Gender Inequality In Household Work” Author, Brigid Schulte discusses the revealing affect COVID-19 is having on the disparity between genders and household responsibilities. Schulte also gives advice on how to open up the conversation with a partner about a more equitable division of labor. [https://www.npr.org/2020/05/21/860091230/pandemic-makes-evident-grotesque-gender-inequality-in-household-work](https://www.npr.org/2020/05/21/860091230/pandemic-makes-evident-grotesque-gender-inequality-in-household-work)

“Women are getting less research done than men during this coronavirus pandemic” Megan Frederickson, Associate Professor of Ecology & Evolutionary biology at the University of Toronto, talks about her own experiences as both a researcher and a mother. Dr. Frederickson also dives into data exploring the gaps between male and female authors on journal publications. [https://theconversation.com/women-are-getting-less-research-done-than-men-during-this-coronavirus-pandemic-138073](https://theconversation.com/women-are-getting-less-research-done-than-men-during-this-coronavirus-pandemic-138073)

From our members

Dr. Noelia Carmona (International Delegate and AWG President-Elect) suggested collecting and distributing free resources for teaching and training that have become available during this pandemic.

Dr. Carmona begins the conversation with these resources:

- [https://www.geosociety.org/GSA/Education_Careers/GSA/edu-career/online-resources.aspx](https://www.geosociety.org/GSA/Education_Careers/GSA/edu-career/online-resources.aspx) (Particularly the GSA Webinar Library, which has recorded webinars focused on grants, programs and career development, including information about geoscience-related careers in environmental consulting, alternative energy, paleontology, petroleum, and minerals. Open access through 30 June).
- [https://micromyearth.com/geology-resources/geology-courses/?cookie-state-change=1588917164553](https://micromyearth.com/geology-resources/geology-courses/?cookie-state-change=1588917164553)

Please send in any resources you have or are using during this time!

We love to hear from our members!
NEW Feature: Every month E-News will have a brand new crossword puzzle with different geoscience/earth science themes. These are made by Emily Kam, so if you have any suggestions for themes or see any mistakes, please email her at enews@awg.org. Enjoy!

May E-News Crossword - Hydrology Theme

Across
3. an ephemeral stream bed of arid and semiarid areas typically with a coarse bed-load sediments and steep channel walls
4. a site of slow flow of groundwater to the land surface or to a body of water
5. a geologic material, stratum, or formation that contains water but does not transmit it
6. the line of maximum flow (or depth) of a stream
9. a unit of intrinsic permeability that is proportional to a discharge of one cc/sec of a fluid of one centipoise viscosity though an area of one cm² normal to a gradient of one atmosphere of pressure per centimetre
12. a depositional break in sedimentation of minor extent and presumed to represent a hiatus of minor duration
14. the state in a fluid in which the surfaces of constant density or temperature are coincident with a surface of constant pressure
18. the area of land drained by a single stream or river or, in the case of karst, drained by a single doline or group of dolines
19. strain is elastic and directly proportional to stress (2 words)
20. a pipe that is in a well or borehole
22. the process by which microbes or other organisms remove contaminant from a groundwater system
23. water that infiltrates the land surface and flows into a stream but never recharges the local water table
24. a device for measuring the quantity, quality, or rate of water movement in the soil
25. the removal of salts from saline water to provide freshwater

Down
1. a curved water table or potentiometric surface that forms around a pumping well (3 words)
2. the length of the wetted contact between a conveyed fluid and the open channel or closed conduit carrying it, measure at right angles to the flow direction (2 words)
7. a hole drilled into the earth into which well casings or piezometers may be installed
8. pulling air through and extracting it from the vadose zone
10. the transport of a solvent usually water through a semipermeable membrane from the fresher side towards to the more saline side
11. a geologic material, stratum, or formation of low permeability that transmits significant amount of water on a regional scale
13. particles so small that they do not settle gravitationally, but are kept suspended by Brownian motion
15. a geological formation or structure that stores and/or transmits water
16. (1) top of a dam or spillway; (2) the highest elevation reached by flood waters
17. the flow of fluid along preferred paths in the plane of a fracture
21. flow into a sedimentary basin at some unspecified depth from the surrounding highlands, commonly through fractures systems. Subflow could also include interbasin flow
Click **HERE** to login and renew!

If you have any questions, need assistance or wish to renew by phone, call the AWG office at **303-412-6219** or email to **office@awg.org**.

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**Be Featured in E-News!**

**Photo Share**

Do you have an awesome picture from field work or a recent trip? We want to feature your photos on the cover of the next E-News!

*Please send your submissions to* enews@awg.org

*Include your name and where the photo was taken.*

**Advice of the Month**

Do you have some advice you’d like to share with our readers?

It could be about anything: career paths, being a woman in science, travel, life, etc.

*Please submit a short (~50 word) blurb to* enews@awg.org

*(Your submissions can be anonymous)*

Thank you for being a part of the AWG community!

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**AWG's Northern Calif. San Andreas Fault Field Trip is Postponed to September 2021**

In response to the ongoing coronavirus pandemic, AWG and Williams GeoAdventures have decided to postpone this year's AWG field trip to the Northern California San Andreas Fault a year to September of 2021. The dates will be similar (**Sept. 10-17**, give or take a few days either way), and while we can't guarantee the same price, we don't expect it to be significantly higher. We'll re-advertise the trip in late winter or spring of next year.

NZ group photo (to the right): The AWG New Zealand field trip group pointing at the green fault gouge along the plate-bound Alpine Fault (reverse fault) at Gaunt Creek, near the west coast of the South Island. Above the fault gouge is the Pacific Plate; below is the Australian Plate.
The Association for Women Geoscientists (AWG) is fully committed to encouraging and enhancing women’s careers in the geosciences through open exchange of information with the American Association of Petroleum Geologists Women’s Network (AAPGWN). We are committed to a productive collaboration to ensure AAPGWN gains visibility and recognition within the greater AAPG organization and geoscience communities. The AWG recognizes the AAPGWN as an essential platform to educate, advocate, and contribute to AAPG diversity at large by putting professional and technical development at the forefront of the organization.
The American Geosciences Institute is conducting a year-long study to understand how geoscience employers and educational institutions are changing their workplace and instructional environments in response to the COVID-19 pandemic, and to discover which of these changes will become permanent.

This study is open to all geoscientists, including geoscience students, retired, and not currently employed, who reside in the United States, and are at least 18 years old.

Over the next 52 weeks, we will email a brief online status survey twice a month to each participant.

The information you provide will be valuable in helping geoscience academic institutions, geoscience employers and decision makers to understand the short-term and long-term structural impacts on the geoscience enterprise from the COVID-19 pandemic.

Results from the study will be reported only in aggregate and in a manner that ensures the confidentiality of the responses. Participation is voluntary, and you may discontinue your participation at any time.

**For more information and to participate in the study, please visit** [https://www.americangeosciences.org/workforce/covid19](https://www.americangeosciences.org/workforce/covid19).

If you have any questions or concerns about this study, please contact Leila Gonzales, who is the principal investigator for this study, at lmg@americangeosciences.org.

Funding for this project is provided by the National Science Foundation (Award #2029570). The results and interpretation of the survey are the views of the American Geosciences Institute and not those of the National Science Foundation.

Regards,
Christopher M. Keane, Ph.D.
Director, Geoscience Profession and Higher Education
American Geosciences Institute
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Alexandria, VA 22302
keane@americangeosciences.org
Professional Excellence Awards

The AWG Professional Excellence awards will go to women who, throughout their careers, have made distinguished contributions in each of the three following professional areas:

- Government/regulatory,
- Private industry/consulting and
- Academia/research.

Nominations will be solicited from the AWG membership at large. Professional excellence is broadly defined, and may include accomplishments such as:

1. Breadth and depth of professional accomplishments
2. Mentoring of other geoscience professionals
3. Outreach and service activities
4. Membership in professional societies

Nominees need not be members of AWG and those without memberships will receive a one-year professional membership with their award. Recognition will be made at the GSA Annual Meeting and other appropriate annual meetings, in GAEA and online e-news. Nominations can be submitted using the following link, which can also be found on the AWG website at www.awg.org/awards. If you do not have a google account, please submit your nomination as one complete pdf package to pro-excellence@awg.org

1) A one to two page letter summarizing the nominee's most important accomplishments in professional areas that demonstrates multidisciplinary geologic accomplishments within their realm of expertise;

2) The nominee's CV

3) Two letters of support, which can be from non-members of AWG, with a maximum of five letters.

4) Specify which of the three awards for which you are applying

**Nomination deadline: June 15th each year**

The AWG Professional Excellence Awards are graciously supported by a donation from Other Orb. You can learn more about Other Orb by clicking on the logo!
AGI Unveils Completed Geoscience Women in STEM Site With Webinar

ALEXANDRIA, Va. — The American Geosciences Institute (AGI) is unveiling its completed Geoscience Women in STEM website this week with a free webinar for educators on providing Earth science teaching and learning resources inspired by the work of leading women in science and engineering, with generous support from Lyda Hill Philanthropies.

AGI's Geoscience Women in STEM site is designed to strengthen geoscience education through exploration of the stories of four women scientists, including three who were recently selected as American Association for the Advancement of Science (AAAS) IF/THEN® Ambassadors by IF/THEN®, an initiative created by Lyda Hill Philanthropies to promote the participation of girls and women in science, technology, engineering, and math (STEM) fields.

The site, originally launched in January 2020 with a focus on just one scientist, now encompasses education experiences and activities inspired by the careers of four trailblazing STEM leaders:

- Geobiologist **Hope Jahren**, a renowned expert on the chemical composition of plants and trees and author of *Lab Girl*;
- Particle physicist **Jessica Esquivel**, a researcher at Fermi National Accelerator Laboratory and AAAS IF/THEN® Ambassador;
- Climate policy expert **Shyla Raghav**, the vice president of climate change for Conservation International and AAAS IF/THEN® Ambassador; and
- Entrepreneur **Jasmine Sadler**, an aerospace engineer and CEO of The STEAM Collaborative and AAAS IF/THEN® Ambassador.

The Geoscience Women in STEM site provides curriculum connections that concentrate on the Next Generation Science Standards in Earth and Space Science (NGSS-ESS) and illustrate ways that STEM topics can be explored across traditional disciplinary boundaries and in relation to all students' experiences.

On May 14, 2020, AGI debuts the completed website with an NGSS-ESS Working Group webinar, "Promoting Diversity in the Geosciences: Meet the IF/THEN STEM Ambassadors." The webinar introduces participants to curriculum modules developed around the inspirational stories of leading women geoscientists. These activities serve as exciting entry points for educators and students to further explore the geosciences and STEM.

The webinar will be available for free viewing online by 1 p.m. ET, Friday, May 15, 2020, as part of the National Association of Geoscience Teachers Webinars archive.

In addition, AGI and its publishing partner Nautilus are producing a limited run of print booklets featuring profiles of all four scientists featured on the Geoscience Women in STEM website, which will be made available to AGI's education partner organizations.

Hosted on the Earth Science Week website, the Geoscience Women in STEM site supports an ongoing area of emphasis for AGI's Earth Science Week program, spearheaded by its "Geoscience Is for Everyone" campaign, which provides information, materials, and activities emphasizing both the inclusive potential and the importance of the geosciences in the lives of all people.

Continued on next page
About IF/THEN®
IF/THEN® is part of Lyda Hill Philanthropies' commitment to fund game-changing advancements in science and nature. IF/THEN® seeks to further advance women in STEM by empowering current innovators and inspiring the next generation of pioneers. Rooted in a firm belief that there is no better time to highlight positive and successful female professional role models, IF/THEN® is designed to activate a culture shift among young girls to open their eyes to STEM careers by: (1) funding and elevating women in STEM as role models, (2) convening cross-sector partners in entertainment, fashion, sports, business and academia to illuminate the importance of STEM everywhere, and (3) inspiring girls with better portrayals of women in STEM through media and learning experiences to pique their interest in STEM careers. To learn more, visit www.ifthenshecan.org or follow IF/THEN® on Facebook, Twitter, Instagram, and LinkedIn.

About AAAS IF/THEN® Ambassadors
AAAS IF/THEN® Ambassadors were selected through a rigorous process by IF/THEN® and the American Association for the Advancement of Science (AAAS), the world’s largest general scientific society with the mission to advance science and serve society. The full list of women selected as AAAS IF/THEN® Ambassadors can be found at www.ifthenshecan.org/ambassadors.

About Lyda Hill Philanthropies
Lyda Hill Philanthropies encompasses the charitable giving of founder Lyda Hill who believes that "science is the answer" to life’s most challenging issues and is committed to funding transformational advances in science and nature. To learn more, visit www.lydahillphilanthropies.org.

About Nautilus
Nautilus is a different kind of science magazine. Online, in print, and in the classroom, Nautilus leverages deep, undiluted, narrative storytelling to bring science into the largest and most important conversations we are having today. After all, that is where modern science — which is so personal, pervasive, spiritual, and transformative — deserves to be. Nautilus challenges the reader to consider the deep, mysterious connecting tissue that runs through the sciences and connects them to philosophy, culture, and art. Find out more at nautil.us.

About AGI
The American Geosciences Institute (AGI) is a nonprofit federation of more than 50 scientific and professional associations that represents over a quarter-million geoscientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment. Learn more at www.americangeosciences.org.

The American Geosciences Institute represents and serves the geoscience community by providing collaborative leadership and information to connect Earth, science, and people.

AGI Contact:
Geoff Camphire, Communications
gac@americangeosciences.org

Connect with AGI
Ellen Reat (PhD student, University of Utah) working from home with foster puppy, Ricky, and her dog, Bowen.
Ricky has since gone on to find a happy forever home.

Emmons McKinney (Cal Poly Ponoma Geological Sciences)
“A silly consequence of a new work from home set up: My wife has to keep reminding me to close the bathroom door when I pee because the sound on a Zoom call is apparently giggle-inducing to her coworkers. Nature calls too loudly I suppose.”

Andrea Stevens Goddard (Assistant Professor, Rowan University):
“My WFH set up features a picking scope. It is nice to have a break from the screen AND keep a little bit of lab work moving forward during the shut down!”
Lisa Tranel (AWG President, Illinois State University):
“I don’t have a good work from home image, but I thought I’d share my recent geo related face mask. My topographic map handkerchief was converted to a face mask so I could make a trip into my office to retrieve some items to work from home. The topographic map is of Grand Teton National Park. Jackson and Leigh Lakes can be seen on the mask! And the trees (green) grow on the moraines surrounding the lakes!”

Megan Cleinmark (PG, Senior Geologist):
“This is our morning routine. Me on my laptop in my 2.5 year old’s room. 9 months pregnant. This is being a working mama right now. Raw. Never been prouder to be a geologist or a mom ♥️”

Working from home (WFH)?
Have pictures of your set up?
Have WFH advice or stories?
Email us at enews@awg.org to be featured!
Thank you for being apart of the AWG community!
Spring Chapter Reports were full of great activities, which we will be sharing over the next several months. Here is a selection of plans interrupted.

San Francisco Bay Area (SFBA)

We had planned to judge local science fairs in association with the SAGE project. Only two science fairs were attended by our members before impacts due to the coronavirus essentially caused us to cancel attending the remaining science fairs (and/or the fairs canceled themselves). We still plan to select Outstanding Student Awards and (if not impacted by the coronavirus restrictions) organize our annual Banquet to celebrate the SAGE and OSA students.

Sierra

Sierra Chapter has not engaged in any activities so far this year, and will not be able to do so until the COVID pandemic has passed. Future plans include a member-led field trip to view Sierra Nevada Plutons (one of our members’ field areas), and regional hikes. We received positive responses from members during our recent officer election, and we look forward to planning future outings.

Laramide

Laramide Chapter, with many fundraising and outreach activities, reports a slew of planned events on hold: Other events planned for spring 2020 (Sunday brunch, Dinosaur Ridge speaker, corn hole tournament, awards ceremonies, speed networking) are going to be cancelled due to the COVID-19 outbreak, and we are hoping to reschedule some events for the summer. They moved the Dinosaur event on-line as a virtual Happy Hour, and they are holding Virtual Trivia Nights!

Northern Florida

Northern Florida has postponed their planned Resume Workshop, noting: We were going to have a joint resume workshop with the AIPG chapter at University of Florida. During this workshop participants would review each other’s resumes. Because of the COVID-19 pandemic this has to be postponed until we find a new date and decide how best to present this on a virtual platform.
Chapters Reporting COVID-19 Impacts on Activities

James Madison University (JMU)

For the spring, we attended JMU’s student organization night to attract new potential members and ran the information sessions to introduce AWG to new members. Our chapter had intended to host an alumni panel in late March, but due to the closures from COVID-19, we will now likely send panelists questions to be answered and then send their answers around to our members. Panelists will represent several post-undergraduate paths, from teaching in secondary school, to the workforce, to graduate school. Questions will be focused on how best to prepare for these various paths and how to address challenges in these environments, especially as a woman. Additionally, we had intended to host a workshop for JMU’s Expanding Your Horizons program on March 21st, which encourages middle and high school girls to pursue STEM focused careers through hands on activities. Our lesson was about soil horizons and how water travels through different soils, which, depending on grain size, can even act as filtering systems. However, this event too has been cancelled due to COVID-19 closures. As for any more plans for this semester, depending on JMU’s decision regarding students getting back on campus for this spring semester, a fundraiser may still be planned to raise money to put toward JMU AWG member’s national membership fees. Once the newly elected executive gets the chance to talk with the previous exec, ideas for AWG events and meetings will be discussed and plans will be made for next semester.

The Editors are pleased to see the optimism and creativity of our chapters, and find the following update from Vanderbilt AWG to well express our optimism for the future:

In light of the upcoming changeover in all of the officer positions for our AWG, we held a series of meetings ... to discuss who our new officer team would be. In February 2020 we elected Cameron de Wet to the office of President, Genna Chiaro to the office of Vice President, and Sarah Williams to the office of Secretary. Professor Jessica Oster will stay on as our faculty advisor. She provides welcome continuity to the new officer team. We are an official student group on campus and have fully updated our information with Vanderbilt to reflect these changes. We have a budget of $1300 from Vanderbilt for AWG events. We were in the process of planning a social event of some kind for later in the spring, but the disruptions to campus life caused by COVID-19 have led us to cancel these plans. We will aim to provide what support we can to our members in the coming weeks and are excited to hit the ground running with our new officer team once campus life resumes.
USGS Opportunity

Geophysicist Vacancy

The U.S. Geological Survey's (USGS) Central Energy Resources Science Center (CERSC) in Lakewood, Colorado has a vacancy for a Geophysicist. The primary responsibilities of the position include (a) working with reflection seismic data and other geophysical data in support of various projects across the USGS Energy Resources Program, (b) maintaining and supporting computer hardware and software dedicated to the acquisition, processing, and interpretation of reflection seismic data, and (c) disseminating results of geophysical research and studies through presentations and publications.

How to Apply

This is a permanent, full-time position that will be filled at either the GS-12 ($84,118–$109,358) or GS-13 ($100,027–$130,039) levels, depending upon qualifications and experience. The application period is from 5/18/20 through 6/8/20.

For more information, and to apply for the job, please visit: [https://www.usajobs.gov/GetJob/ViewDetails/568343600](https://www.usajobs.gov/GetJob/ViewDetails/568343600) -or- [https://www.usajobs.gov/GetJob/ViewDetails/568344700](https://www.usajobs.gov/GetJob/ViewDetails/568344700) (current/former Federal employees). Applications for this vacancy must be received on-line via USAJOBS BEFORE midnight Eastern Time on 6/8/20. If you fail to submit a complete on-line application, you will not be considered for this position. Requests for extensions will not be granted. For assistance or questions, or if applying on-line poses a hardship to you, please contact Mary Dunlap (mmdunlap@usgs.gov) in the Office of Human Resources (303-236-9563) prior to the closing date.

About CERSC

The CERSC is part of the USGS Energy Resources Program which conducts research and assessments to advance the understanding of the Nation’s energy resources. We study processes critical to the formation, accumulation, occurrence, and alteration of geologically based energy resources. We conduct undiscovered energy resource assessments and disseminate the results to the public and policy makers at all levels of government. We also evaluate the environmental and socioeconomic effects of energy resource occurrence, production, and use. U.S. Citizenship is required. The Federal Government is an equal opportunity employer.
Greetings!
We wanted to share that we are now accepting submissions for this year’s National Fossil Day Art Contest.

This year’s art contest theme is “Life of the Paleozoic Oceans!” and we are looking for artwork from around the country showcasing the marine life of the Paleozoic Era.

This theme is inspired by our 2020 National Fossil Day Logo which features the organisms of the Permian Reef of the Guadalupe Mountains of West Texas and New Mexico.

You can find more information about the 2020 National Fossil Day Logo Here: https://www.nps.gov/articles/fossils-of-the-2020-national-fossil-day-artwork.htm

**Deadline for the 2020 National Fossil Day Art Contest is Friday, October 2nd, 2020.**

You can find more information and the art contest entry form here: https://www.nps.gov/subjects/fossilday/art-contest-2020.htm

Thank you all for your continued support of National Fossil Day and we hope to see some amazing entries this year!