Outstanding Educator of 2018 is Gabriela Mángano

By Lauren Neitzke Adamo

The AWG is thrilled to announce Dr. M. Gabriela Mángano as the recipient of the 2018 Outstanding Educator Award. Gabriela entered the geoscience field after receiving her education and training at the University of Buenos Aires (UBA), Argentina. She started teaching and working in academia at the University of Tucumán and University of Salta (Sede Tartagal), Argentina, until she moved with her husband, Dr. Luis Buatois, to the University of Saskatchewan, Canada in 2004. Here she excelled and was promoted to Full Professor with tenure in 2013.

Dr. Mángano is a leader in her field of research and has been recognized by the Argentinean Paleontological Association, the Mid-American Paleontological Society and the Argentinean Federation of University Women for her significant contributions in the field of Paleontology. A fellow colleague stated, “I was quickly impressed by her unbounded enthusiasm for this broad topic area and the breadth of her knowledge and experience. She is well recognized as a prominent leader in her field of scientific endeavor, as just a quick glance at her outstanding record of substantial publications will confirm.”

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Greetings, AWG members!

As 2018 comes to a close, I find myself asking: where did the time go? Over the last 12 months, we’ve accomplished many goals and worked to provide great outreach and education opportunities! We’ve also seen the establishment of several new chapters! Kudos to all of you for continuing to work within your communities to support opportunities for women and girls in the geosciences! As we approach 2019, I’d like to invite each of you to renew your membership, so we can continue doing this inspiring and valuable work together!

Most recently, the Executive Board and Board of Directors have been working tirelessly to build new membership resources. I’m pleased to announce two new developments: (1) our Bylaws have been updated in response to our growing organization, and (2) in response to your comments, we have overhauled the Chapter Manual and developed a Chapter Resources guide. These tools will be circulated very soon! Additionally, Mentoring365 has undergone an upgrade (sign up for this program at mentoring365.com) and keep an eye out for a new award (to be announced soon)!

Speaking of awards, we’ve just had the annual AWG Awards Breakfast at GSA, where we heard about the wonderful accomplishments of our members! Congratulations to all our awardees! And, don’t forget, it’s never too early to nominate for next year’s awards! On behalf of the award committees, the editorial board, and myself, I’m sure I can say: we’re all excited to see what everyone is working on!

Aside from the breakfast, AWG was present at GSA in a variety of other ways. As usual, we had a fantastic booth presence, which allowed us to speak with many of you, as well as working with AWGF on the Pardee Session: Women Rising!

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Additionally, we were able to present on our work with recruitment and retention, which goes along with our recently released book chapter in *Women and Geology: Who We Are, Where Have We Come From, and Where Are We Going?* We will also have a significant presence at AGU, including our booth, a bullying workshop for the heads and chairs, and we are co-hosting the Diversity and Inclusion networking event. We’re looking forward to seeing you in Washington, DC!

Finally, I’m pleased to announce the new theme for 2019: inclusivity! As an association, AWG has a rich history of promoting inclusive environments. Starting with our initial establishment as a place for women in the geosciences, we have continuously worked to make the geosciences more accessible to all.

As such, I’d like to open the conversation to all of our members: how can we make AWG more inclusive? What are initiatives you’d like to see AWG implement? If you have ideas, comments, or thoughts, please email me at president@awg.org! I’d love to discuss with you!

Wishing you all the best this holiday season and keep up the fantastic work!

Mackenzie
I have just returned from attending the AWG Breakfast at GSA Indianapolis where AWG honored a number of deserving women and men who have contributed to our mission to attain equality of opportunity for women in the geosciences and train new leaders by funding high impact programs for women in the geosciences. The award for Outstanding Educator, established in 1988, as the premier Professional Award of the Association for Women Geoscientists acknowledges the role that teachers and mentors play in the lives of all geoscientists. The Outstanding Educator award honors well-established female college or university teachers who have played an important role in education and support of geoscientists both inside and outside the classroom. Currently when the focus of many academic departments is on research, this award recognizes the value of teaching and mentoring as a part of the academic world.

Our 2018 Awardee, Dr. M. Gabriela Mángano is the 30th recipient of the Outstanding Educator Award. Dr Mángano received her education and training at the University of Buenos Aires, Argentina. She started teaching and working in academia at the University of Tucumán and University of Salta (Sede Tartagal), Argentina, until she moved with her husband, Dr. Luis Buatois, to the University of Saskatchewan in 2004. Gabriela has been recognized for her significant contributions in the field of paleontology. The Outstanding Educator Award recognizes her significant contribution as a teacher and mentor.

This morning, as I heard Gabriela accept her award and in speaking with her afterward, I was struck by her obvious passion for teaching. She spoke about the importance of “sharing, sharing, sharing” in our scientific endeavors as well as through mentoring. In today’s world, although we talk about teamwork, we still see people focusing on themselves and their work rather than embracing the value of sharing knowledge and experience to produce a better final product.

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Dr. Mángano also dedicates time and efforts to helping refugees and students from developing countries gain access to education. She continually shares her optimism by encouraging students to work hard for a better world and to be the best version of themselves. I was inspired by her and encouraged to continue my own efforts in teaching and mentoring.

I think each one of us has benefited from great teachers and mentors in our lives. At every stage of my life, from K-12 through college and into my career I benefited from people who had a passion for and interest in teaching and supporting me as I tried to grow and navigate the challenges along the way.

We congratulate Dr. Mángano in this 30th anniversary of our Outstanding Educator Award and celebrate again the 29 Educators we have honored before her. (See the Complete List on Page 7)

If you take a moment now to think about the teachers and mentors in your life, you might consider a donation to the AWG Foundation to support the ongoing efforts of this project or others that the AWG Foundation supports. With the number and the quality of the applicants we receive each year it would be fantastic to either expand the number of awards we can give or increase the amount of the awards.

As a 501(c)(3) non-profit public benefit corporation, the AWG Foundation funds AWG projects that encourage women to study and to pursue careers in the geosciences. This past weekend the AWG Foundation board met to review the reports of the work that we have accomplished this past year and award funding for the coming year. It is also a time of year when we are actively fundraising to be able to continue and expand the work that we do with and in support of the Association for Women Geoscientists.

Please join me in supporting AWG through the Foundation by making a tax-deductible donation.

Thank you for your support of the AWG Foundation.

Jenny Thompson
AWG Foundation President

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Or donate online at www.awg.org
Those who spoke about Gabriela all talked about her infectious passion for teaching, and her uncanny ability to connect with and inspire both male and female undergraduates and graduate students. She has consistently showed her support for students in all phases of their career with a “never closed office door” policy. A former student had the following to say about Dr. Mángano’s interaction with students.

“She is friendly, knowledgeable and committed to help and guide during the entire research process, always providing new ideas and enlightening during those times you feel “stuck”. She always makes time for her students, even when she is away on field trips. In class, she makes sure that everybody understands the subject of the day and encourages students to actively participate in debates and discussions. It is easy to notice the interest of Gabriela to inspire young students, especially those in first year, to study geosciences; you can see her showing them fossils and minerals in the department hallway exhibitions and explaining them with passion.”

What is even more impressive is Dr. Mángano’s efforts and dedication to helping provide refugees and young students from developing countries access to education. She is an active volunteer in the World University Service of Canada (WUSC) outreach program “Shine a Light,” dedicated to organizing fundraising events to provide resources for refugee girls to attend school. She also provides a tremendous amount of support to the Student Refugee Program, and as a result of Dr. Mángano’s efforts, she was able to help secure increased funding for several Syrian refugee students to attend University of Saskatchewan in 2016.

When asked about the challenges getting to this point in her career, Mángano credits an early love of natural science, archeology, and cosmology, and her family and friends for helping put her on this path. She first became hooked on “the Earth” during her first year of college when professors like Eduardo Olivero, Beatriz Aguirre-Urreta, and Victor Ramos taught her the importance of reading scientific literature, becoming an active member of professional societies, integrating real scientific information, and paying attention to the detail while looking at the “large-scale” picture. These are all ideals she still holds dear today, as she strives to integrate a multitude of real datasets into her teaching and works to help students shed some light on the many complex issues affecting the environment today. She admits that the path has not always been a straight one, and that finding the work life balance day-to-day has often been a struggle. This does not diminish her optimism as she encourages her students to work every day on being a good and fulfilled person -- one who works hard for a better world, has planted the seeds of justice, and has tried to reach the best version of themselves.

Dr. Mángano has the following advice for young and early career female geoscientists:

“Follow your passions, your instinct... not what is fashionable or promoted by the market. You can make a difference if you choose what you are really passionate about. Enjoy and celebrate every achievement in your career, but be prepared and resilient for some tough moments. Life is not necessarily easy for female geoscientists today, but think and learn about those before your time who prepared the road for more equal career opportunities, both in the Academy and in Industry. You are not alone, there are many others working tirelessly, as we all know as members of AWG, for a more equal and fair geoscience world.”
30 Years of Outstanding Educators  Continued from Page 6

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<th>Year</th>
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<td>1988</td>
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<td>Bryn Mawr College</td>
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Dr Gabriela Mángano with David (Deng) Aruei, a World University Service of Canada student attending field school in Asturias
The Association for Women Geoscientists is pleased to announce the awardees for the 2018 Chrysalis Scholarships. The committee has chosen three awardees this year. The recipients are: Maggie Graham, The University of Kansas; Stacy Hendricks, The University of Kansas; and Alicia Tyson, Colorado State University.

The Chrysalis Scholarship provides degree-completion funding for women-geoscience graduate students whose education has been significantly interrupted by life circumstances. The awards are intended to cover costs associated with completion of her thesis/dissertation, beyond what is traditionally covered by primary research funding. Such costs can include drafting expenses, child-care, defense travel, late-stage research and analyses, or anything necessary to assist a degree candidate during those critical, final days. The award amount varies up to $2,000 and the application deadline is March 31 each year. See the AWG website for additional information. http://awg.org/awards

Maggie Graham
Maggie is a Master’s student at the University of Kansas studying geochemistry and tephrochronology. She has a passion for science as well as sharing her knowledge and interests with others through service and outreach activities. Maggie is especially interested in how elements interact and the crystal structures that they form. Her goal is to empower people to do what they love by encouraging them to obtain their goals through new experiences and education. Maggie actively participates in outreach opportunities through volunteering and teaching. She has participated in outreach through AWG sponsored events and service events through her service fraternity, Alpha Phi Omega, which included teaching elementary children about fossils, participating in Boy Scout events, demonstrating her laboratory to young girls participating in “Women in Science” days, and advising potential students who have an interest in STEM fields. Maggie’s career goal is to be a laboratory manager in an experimental geochemistry laboratory. She wants to continue to ask difficult questions and then employ a multitude of techniques to answer them. By sharing her knowledge with students, she hopes to not only teach them what to do in the laboratory, but why scientists do things a certain way. She wants to help make herself and others better scientists by teaching how to troubleshoot errors, how to decide whether their data are usable, or if there is something they should consider for future experiments.

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Stacy Hendricks
Stacy grew up in western Nebraska, where she became fascinated by the Earth and its processes. She was fortunate enough to have passionate and inspiring teachers throughout her school years who encouraged her to pursue her interest in science. In 2016 she became the first in her family to graduate from a 4-year college and earned a Bachelor of Science in Geology from Rocky Mountain College in Montana. She is currently working toward a Master of Science in Hydrogeology with an interest in geochemistry at the University of Kansas in Lawrence. Under the mentorship of Dr. Gwen Macpherson, Professor of Hydrogeology, she is sequentially extracting stable lithium isotopes to understand water-rock interactions and the implications for chemical weathering processes, from alkaline lake core sediments taken from western Nebraska Sand Hills. As a low-income single mother, she has faced many obstacles to achieve her higher education and career goals. She hopes to inspire and empower other women in science to overcome their own hardships through outreach and mentorship. Currently she is aspiring to achieve gainful employment with a natural resource company or a government agency involved in solving hydrogeologic challenges. Dedicated to her goal of being a relevant and proactive member of the scientific community, she marches forward so her son can have a bright future.

Alicia Tyson
Alicia is a Ph.D. student in the Colorado State University Department of Geosciences, conducting interdisciplinary research with the Department of Ecosystem Science and Sustainability and the Department of Forestry, Rangeland, and Stewardship. In addition to a previous career in broadcast journalism, Alicia leverages a background in anthropology, environmental education, and GIS by applying a mixed methods approach to address problems at the intersection of climate change adaptation, disaster risk reduction, and resiliency of communities and landscapes. She holds a B.A. in Communications/Spanish from the University of Alabama-Huntsville and an M.A. in Broadcast Journalism from the University of Colorado-Boulder. Her experiences gained while earning an M.S. in GIS from the University of Denver included training undergraduate students in the fundamentals of GPS data collection and several months of field research in Cuzco and Machu Picchu Pueblo (Aguas Calientes), Peru. These valuable opportunities, along with her personal connection to her Mexican heritage, helped paved the way for her passion to work with communities throughout Latin America and the Caribbean. Expanding on her master’s research, “GIS prototype modeling of landslide susceptibility and risk perception – Aguas Calientes (Machu Picchu Pueblo), Peru: An exploratory approach,” she is currently developing projects in the Caribbean, particularly Puerto Rico. Her research seeks to incorporate theoretical and methodological frameworks in a creative, integrated, transdisciplinary, computational, and sustainable manner that visualizes solutions across both space and time and builds capacity, particularly within marginalized communities, through co-creative integration of indigenous knowledge. Specifically, she is examining the impact of land use/cover change, anthropologically induced and naturally occurring, on hazards susceptibility and watershed management using remote sensing, GIS, and a social assessment of watershed health. This approach empowers the knowledge, attitudes, and belief systems of communities often underrepresented in collaborative resource management. She proposes that this dynamic manner of addressing watershed management is particularly vital when examining the adaptive capacity and resiliency of social and natural systems in response to climate change and extreme events, such as rainfall-induced landslides and hurricanes.

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AWG is pleased to report that Molly Gallahue, from St. Norbert College, and Samantha McComb, from SUNY-Potsdam, were selected to receive scholarships to support their attendance in field geology camps this past summer.

Molly Gallahue

I am a recent graduate of St. Norbert College (De Pere, WI) where I majored in geology as well as mathematics. I have just completed my field geology course conducted through Illinois State University and run by Dr. David Malone. Our field camp spent approximately 4.5 weeks in northern/northwestern Wyoming and 1 week in the Black Hills of South Dakota. We completed several projects, including one that measured and described the local stratigraphy of the Powder River Basin, several that mapped areas that were deformed by the Laramide orogeny or that were deformed through detachment slides, and finally a project that mapped metamorphic rocks.

I really enjoyed my field camp experience! It certainly is one of the most challenging things I have ever done, but I can already tell it is one of the most rewarding things I have ever done. I saw so many things that I had never seen before and some things that I didn’t even know existed.

Some of my favorite things that we found were gastroliths, a kimberlite outcrop, and geodes that had beautifully formed calcite crystals (a big group of us spent one of our days off searching for these geodes!). On the non-geology side of things, the wildlife of the area was also spectacular. Not to mention, I was able to meet so many talented students from all across the country! As cliche as it is, I would advise my pre-camp self to just enjoy every second! Looking back on it, the whole experience went by in the blink of an eye and I already find myself missing it! I would also advise myself to take full advantage of every opportunity and really get to know my professors and classmates.

Samantha McComb

I am a Geology BS major with minors in Geographic Information Systems and Mathematics at State University of New York at Potsdam. From June 17th, 2018 through July 31st, 2018, I attended Indiana University’s Geology Field Camp in southwest Montana. The first week was a caravan trip of 10 Suburbans from Rapid City SD to the Indiana University Judson Mead Geologic Field Station. We learned about the geology of the Badlands, Yellowstone, Tetons, Black Hills, Powder River and Big Horn Basins. Once we arrived at the station, we completed two weeks of mapping, a week of specialized concentration (in my case sedimentary geology and sequence stratigraphy), four independent mapping days, a week caravan trip to northwest Montana to Glacier National Park and Sun River Canyon, and the final week composed of our final study area. On two out of four days off, I was in the field with Dr. Page Quinton and Dr. Michael Rygel doing the field work portion of my undergraduate research on the Madison Group Carbonates of the Sappington Section.

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This field camp covers it all, I learned how to map complex structures and stratigraphy, measure section, identify formations, take reliable strike and dip measurements, work in the field under difficult conditions (rattlesnakes, barbed wire and heat), and much more. Overall, I did enjoy my time at field camp. Without a doubt it was the most difficult thing I have done as an undergraduate student. The coolest things I saw in the field were the nose of folds, being able to put my finger on a fault contact, visible correlation of parasequences and that one mapping area could experience thick-skinned, thin-skinned and extensional deformation. In addition to those, Glacier National Park, Yellowstone and the Badlands were amazing.

Also, in my opinion, if given the opportunity, undergraduate geology students should go to field camp. This experience has taught me many lessons and has made me a more confident geologist.

If I could go back and give my pre-camp-self advice, I would say to trust your gut, you will not be good at every area of geology immediately, and gators will save many hiking socks from spear grass.

Information on the award:
AWG has sponsored two scholarships yearly since 2008, which are awarded in cooperation with NAGT. These scholarships are meant to encourage promising young women to pursue careers in the geosciences through helping them attend field courses. Named in honor of Maria Luisa “Weecha” Crawford, the scholarships are awarded annually through a competitive process. Applicants must be full-time students pursuing an undergraduate degree in the geosciences (geology, geophysics, geochemistry, hydrology, meteorology, physical oceanography, planetary geology, or earth science education) at an accredited college or university, with a GPA of 3.0 or higher. Target field courses must be four weeks in duration or longer (though these weeks need not be consecutive). AWG appreciates generous support that provides life-changing opportunities for women in geoscience. For more information about the AWG Crawford Field Camp scholarships, requirements for applications, and how you can contribute, please visit: http://awg.org/awards

Crawford Awardees (captions for photos top of page 16)
Left—Molly Gallahue at Shoshone River, WY: This site was her favorite field area because it had some incredible exposure, especially of the Morrison Formation, coprolites and gastroliths, a detachment related to the Heart Mountain slide as well as several folds, faults, and overturned beds. This project was quite challenging but very interesting.

Right—Samantha McComb- at Sappington, MT: Completion of the field work portion of my undergraduate research on the Madison Group Carbonates of the Sappington Section. Two out of four Sundays off were spent in the field measuring section and collecting limestone samples for carbon data and thin sections.
AWG’s 2018 Classic Geosites in England Field Trip

In July, 15 intrepid AWG members participated in a field trip to visit classic geological sites in two different areas of England. The trip was ably led by Chris Darmon and Colin Schofield of Geo Supplies, Ltd. (www.geosupplies.co.uk), a company based in Sheffield specializing in selling geologic supplies and books, as well as running courses and field trips ranging from one-day to multiday “residential” geologic tours. In 2016, I attended a 10-day Scotland tour put together especially for the Northwest Geological Society (based in Seattle) and was impressed enough that I requested they put together an England trip for AWG. We settled on 2 full weeks, one week in Shropshire, England along the border with Wales, and one week in south-central England, focusing on beach exposures in Devon, Somerset, and Dorset along both the Bristol and English Channels. Aside from a misty morning in Lyme Regis, we had fair weather for the entire trip, including a few days with all-time record high temperatures, so we never really needed our raingear. It did, however, make for warm nights in our hotels, since air conditioning is nearly nonexistent outside of major cities.

For our week in Shropshire, we took day trips out of the lovely medieval town of Ludlow, including one day into Wales to see Ediacaran metagabbros preserved in the Welsh Borderland fault system activated during the continental collision that created Pangaea during the late Paleozoic Caledonian orogeny (the Allegheny in North America). Colin drove us all around in a 17-person mini-bus, navigating the narrow roads with great skill. We saw sites for each of the periods of the Paleozoic, including some type sections established by early British geologists such as Murchison and Lapworth. Most of the exposures were either in quarries, including a hike to see the basal Cambrian unconformity, with quartzites overlying latest Precambrian granophyre, or in roadcuts. Highlights included a tour of Snailbeach Lead Mine in the Stiperstones (a resistant ridge of Ordovician quartzites), a historic steam railway excursion up the Severn River to see Carboniferous exposures in a historic coal mining area, a hike along the Long Mynd (latest Precambrian sediments) to see features of the Church Stretton Fault (the southern margin of the Welsh Borderland fault system), and a driving/walking tour in and around Ludlow to see exposures where Murchison named several Silurian Epochs. We drove through other picturesque medieval towns that gave their names to Silurian Epochs, including Llandovery and Much Wenlock. Several stops gave us opportunities to collect fossils, including graptolites and trilobites. This week included a “free day” to give Colin a rest from driving, which several people took advantage of to properly tour Ludlow’s medieval castle, church, and streets lined with half-timbered buildings. A few of us took the train north to Shrewsbury to see the largest town in Shropshire, the medieval city where Charles Darwin grew up.

For our second week, we drove south to Taunton, a mainly Victorian railroad town chosen for its central location for our day trips. Our days generally alternated between trips north to the Bristol Channel coast and trips south to the English Channel coast. Both coasts featured fine exposures of Devonian through Mesozoic rocks, and structures dating back to the late Paleozoic Variscan (aka Hercynian) orogeny, as well as the late Mesozoic Alpine orogeny. They’re also major tourist attractions, and many days were punctuated by stops to sample the excellent local ice creams (Devon being famous for its cream).
We explored the Bristol Channel coast from Lee Bay in Devon near Ilfracombe east to Portishead (near Bristol) in Somerset. Highlights included a spectacularly scenic cliff walk through Devonian sandstones along the north Devon coast at the Valley of the Rocks near Lynton, a beach walk near Klive to see large ammonites (often pyritized) in lower Jurassic sandstones and mudrocks, and a beach walk near Portishead to see the tilted Devonian “Old Red Sandstone” unconformably overlain by basal Permo-Triassic “New Red Sandstone” breccia.

We explored the English Channel coast from Dawlish in Devon east to Kimmeridge Bay in Dorset. Highlights along that coast included a day in Mary Anning’s Jurassic fossil hunting grounds in Lyme Regis and nearby Charmouth (where most of us found several types of Jurassic marine fossils including small ammonites and brachiopods), a hike in the Dawlish area to see Permo-Triassic alluvial and dune deposits (the “New Red Sandstone”), and a short hike to Durdle Door along the English Channel coast, where vertically oriented Mesozoic rocks, turned on edge during the latest Mesozoic Alpine orogeny, create a large coastal arch. (Most of us were equally fascinated by the polished chert pea gravel beach and the horizontal decollement running through vertical beds of Cretaceous chalk.) Our trip was capped by a trip to the Isle of Portland near Weymouth, featuring a panoramic view of Chesil Beach, the nearly 12-mile long chert gravel spit/beach running northwest from the Isle, connecting it with the mainland and extending west down the coast. The source of all these chert gravel beach deposits is “flint” (so-called in Britain regardless of color) nodules from the Cretaceous chalk.

Next year’s field trip is still undetermined, but hopefully my new Field Trip Committee Co-chair, Sarah Cadieux, and I will decide on something soon. If New Zealand is on your bucket list, please plan to join us for a two-week trip in the February/March timeframe in 2020.
AWG Awards

AWG Encourage Award biography – Patricia H. Kelley

Patricia Kelley is an invertebrate paleontologist whose research focuses on the evolutionary paleoecology of Cretaceous—Recent U.S. Coastal Plain molluscs, and especially the predator-prey relationships of shell-drilling gastropods. She received her BA in Geology from the College of Wooster in 1975, and her PhD from Harvard in 1979. She taught at New England College, University of Mississippi, University of North Dakota, and University of North Carolina Wilmington and was a program officer at the National Science Foundation. She is a former president of the Paleontological Society and a former president of the Board of Trustees of the Paleontological Research Institution. Tricia received the AWG Outstanding Educator Award in 2003, the AWG Professional Excellence Award in 2011, research awards from UND and UNCW, and five awards for teaching excellence from UNCW and the UNC system. In 2014 she was recognized as the U.S. Outstanding Master’s Universities and Colleges Professor of the Year by the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education. Tricia retired from teaching in 2016 for other pursuits, including helping with her two grandchildren, but remains active in research and as a Paleontological Society Distinguished Lecturer. She is a strong proponent of women in geoscience; 19 of the 34 MS theses and PhD dissertations she directed to completion were by women. As a Southeast Region Delegate to AWG, Tricia enjoys continuing her role in promoting the recruitment, retention, and success of women in the geosciences.
Book Review

Lab Girl, Author: Hope Jahren, Reviewed by Lynn Wingard

Lab Girl is the story of Hope Jahren’s journey from a young girl spending time in her father’s lab to a scientist, professor, researcher, and mother. Jahren is an internationally recognized scientist for her breakthroughs in paleobotany and application of stable isotope techniques to interpret past environments, but Lab Girl is not about her science – it is the story of her passion for science and her quest to find answers. This drive and dedication is an integral part of her life and through her story we see how it impacts all aspects of her life. Every woman in a STEM field will recognize themselves in at least part of Jahren’s story.

Jahren is not afraid to bare her soul and reveal her private doubts and fears and her struggle to gain respect and be acknowledged for her accomplishments. Her writing is vivid and descriptive, painting images for us of the places that are important to her. From her opening paragraphs describing her father’s laboratory and the long cold walk home on a Minnesota winter night, the reader feels as though they are there with her, witnessing her life. Along the journey she shares the good and the bad. We laugh with her over the various misadventures of field trips with students, the pitfalls of fieldwork abroad, and an unforgettable cross-country trek with a van full of students on the way to AGU. And we feel her dismay when she is told she cannot work during her pregnancy. Her lab partner Bill is an integral part of her story. Bill follows her on her path from graduate school at Berkeley, and on through many job changes. His part in the story illustrates the importance of comradery and collaboration in science and that rarely are big achievements the result of one person’s actions. She reminds us that much of what we accomplish is due to joint efforts, hard work and lots of sacrifice.

Interspersed between the chapters that tell her story, she tells the story of plants. I have always thought of myself as someone who appreciates all of nature, but Jahren allowed me to see and think about plants in a way I never have before. She tells us at the beginning of the book that “people live among plants but they really don’t see them.” After reading her essays, you will see plants in a whole new light. These essays are some of the best naturalist writing I have read.

No matter where you are in your own journey as a scientist, I think you will enjoy traveling with Jahren on hers.
Crawford and Chrysalis Awardees Continued from Pages 11 and 9

Crawford Awardees (above): Samatha McComb and Molly Gallahue

Chrysalis Awardees (below): Stacy Hendricks, Alicia Tyson, and Maggie Graham
Field Trip Photos Continued from Page 13

Left: Discussing the horizontal de-colllement running through the vertically oriented Cretaceous Chalk at Durdle door. (Photo by Marcia Knadle)

Right: Most of the group waiting for the historic Severn Valley Railway train. Left to right: Brenda Buck, Susie Bartz, Jarry Bartz, Marcia Knadle, Barbara Radovich, Carolyn Olson, Imelda Staunton, David South, Nina Baghai-Riding, Tom Brocher, and Janet Crampton. Not pictured: Roberta Harma, Joyce Graf, Donna Jurdy, and Jean Bahr (behind the camera).

Left: Fossil hunting at Lyme Regis. (Photo by Marcia Knadle)

Continued Page 18
Field Trip Photos Continued from Page 17

Left: Brenda Buck and Donna Jurdy get in the British holiday spirit and take to the water near Dawlish (Permo-Triassic red sands in the background). (Photo by Barbara Radovich)

Above Right: One of many ice cream stops. Note the normal fault in the background placing gray Jurassic sandstones and shales against red Permo-Triassic sandstones. (Photo by Brenda Buck)

Below Left: A typical lunch stop – picnic tables were rare. (Photo by Brenda Buck)

Below Right: Ammonite near Klive. (Photo by Jean Bahr)

Continued Page 19
Field Trip Photos Continued from Page 18

Left: Nina Baghai-Riding with statue of her hero Charles Darwin in front of Shrewsbury’s Castle Gates Library (Shrewsbury School when Darwin attended). (Photo by Marcia Knadle)

Above Right: The spectacular (and vertigo-inducing) Valley of the Rocks coastal walk near Lynton, Exmoor National Park, north Devon coast. (Photo by Jean Bahr)

Right: Gray Cambrian Wrekin Quartzite unconformably overlying pink latest Precambrian granophyre. (Photo by Jean Bahr)

Below: The historic Severn Valley Railway train we rode on. (Photo by Jean Bahr)
AWG Awards and Scholarships

2019 AWG Awards for Professional Excellence

AWG is calling for nominations for three annual Professional Excellence awards. The awards will go to women who, throughout their careers, have made distinguished contributions in one of the following categories:

- Government/regulatory agencies
- Private industry/consulting
- Academia/research

Nominations are solicited from the AWG membership at large

Professional excellence is broadly defined and may include:

- Breadth and depth of professional accomplishments
- Mentoring of other geoscience professionals
- Outreach and service activities
- Leadership in professional societies

Nominees need not be members of AWG. Non-member awardees will receive an honorary one-year membership with their award. Award recognition will be made at the GSA Annual Meeting, as well as in GAEA and AWG E-News.

2019 nomination deadline is August 15, 2019. To nominate, please submit the following items as electronic files (pdf preferred):

- Send a one- or two-page letter summarizing the nominee's most important accomplishments in professional areas that demonstrate multidisciplinary geologic accomplishments within her realm of expertise
- The nominee's CV
- Two letters of support, which can be from non-members of AWG, with a maximum of five letters
- Specify which of the three awards (see categories above) is being nominated

The nomination files can be e-mailed to: office@awg.org or mailed to:

ATTN: Professional Excellence Awards
Association for Women Geoscientists
12000 N. Washington St., Suite 285
Thornton, Colorado 80241
### Past Professional Excellence Award Winners

<table>
<thead>
<tr>
<th>Year</th>
<th>Category</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>Government/Regulatory</td>
<td>Patricia McCrory</td>
</tr>
<tr>
<td>2018</td>
<td>Industry/Consulting</td>
<td>Esther Babcock</td>
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<tr>
<td>2018</td>
<td>Academia/Research</td>
<td>Lesley-Ann Dupigny-Giroux</td>
</tr>
<tr>
<td>2017</td>
<td>Government/Regulatory</td>
<td>Kathy Sullivan</td>
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<tr>
<td>2017</td>
<td>Industry/Consulting</td>
<td>Lisa Gusek</td>
</tr>
<tr>
<td>2017</td>
<td>Academia/Research</td>
<td>Alycia Stigall</td>
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<tr>
<td>2016</td>
<td>Government/Regulatory</td>
<td>Diane Moore</td>
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<tr>
<td>2016</td>
<td>Industry/Consulting</td>
<td>Enkhtuya Chuluunbat</td>
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<tr>
<td>2016</td>
<td>Academia/Research</td>
<td>Mary Anne Holmes</td>
</tr>
<tr>
<td>2015</td>
<td>Government/Regulatory</td>
<td>Joan Gomberg</td>
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<tr>
<td>2015</td>
<td>Industry/Consulting</td>
<td>Janell Edman</td>
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<tr>
<td>2015</td>
<td>Academia/Research</td>
<td>Cathy Whitlock</td>
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<tr>
<td>2014</td>
<td>Government/Regulatory</td>
<td>Marie Marshall Garsjo</td>
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<tr>
<td>2014</td>
<td>Industry/Consulting</td>
<td>Nancy House</td>
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<td>2014</td>
<td>Academia/Research</td>
<td>Gwendolyn Macpherson</td>
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<tr>
<td>2013</td>
<td>Government/Regulatory</td>
<td>Vicki Cowart</td>
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<tr>
<td>2013</td>
<td>Industry/Consulting</td>
<td>Jeanne Harris</td>
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<tr>
<td>2013</td>
<td>Academia/Research</td>
<td>Ellen Thomas</td>
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San Francisco Bay Area Chapter

On September 18, 2018, the San Francisco Bay Area (SFBA) Chapter of AWG and the Peninsula Geological Society (PGS) organized a joint meeting at Stanford University. This was the second time our two groups collaborated on a joint meeting. The evening included a social mixer, a catered dinner, a ceremony to celebrate the 2018 AWG SFBA Outstanding Student Award recipients, and closed with a presentation by Research Geophysicist Dr. Sarah Minson of the United States Geological Survey (USGS) titled “The Limits of Earthquake Early Warning.”

The main event of the evening was the award ceremony. The Outstanding Student Award Program aims to encourage undergraduate women to pursue a career in the geosciences. Over the year, nominations were collected from local San Francisco Bay Area universities and from these, nine students received the award. Five of the award winning students attended the ceremony along with their families. For those award winners who were unable to attend, award certificates and cash prizes were mailed to them.

Dr. Minson, a winner of the Presidential Early Career Award for Scientists and Engineers (PECASE) delivered an insightful presentation about how earthquake early warning systems provide population centers with useful warnings of impending strong ground shaking. Dr. Minson illustrated the limitations of existing systems and highlighted strategies by which earthquake early warning systems can be optimized for false-alarm tolerant users.

The goal of the evening was to Encourage the participation of women in the geosciences, Exchange educational and professional information, and Enhance the growth and advancement for all who attended the event. The evening was well attended and feedback from attendees was positive. Attendees appreciated the opportunity to meet others with similar interests, the opportunity to formally recognize the award winning students, and the opportunity to learn more about earthquake early warning from Dr. Minson’s presentation.

Thank you to Mireya Berrios (SFBA Outstanding Student Award Committee Chair), Dennise Templeton (SFBA Chapter President), Barbara Bekins (SFBA Chapter Treasurer), and Lan Ma (SFBA Chapter Secretary) for organizing the event!
Dennise
AWG SFBA Chapter President
San Francisco Bay Area Chapter

SFBA Chapter: Student Awards for Geoscience Excellence (SAGE) Program Awardees

Between March and May 2018, the San Francisco Bay Area Chapter of AWG helped to promote middle-school and high-school student interest in the geosciences by awarding prizes and certificates of excellence to outstanding female presenters of Earth Science themed science fair projects at several local science fairs. Members from the Chapter volunteered their time to judge and present awards at 4 science fairs organized around the Bay Area: the Marin County Secondary Science Fair, the Synopsys Alameda County Science and Engineering Fair, the Synopsys Science & Technology Championship in Santa Clara County, and the Napa County Science Fair.

At the Napa County science and engineering fair, the judges noted that although attendance was down approximately 25% from the previous year (most probably due to ripple effects from the devastating Northern California fires that occurred late last year and burned 220,000 acres and 2,800 homes just in Napa Valley itself), optimism was high among the organizers that more students would return next year when day-to-day home life in the region would re-stabilize even further.

The Chapter is proud to announce that two awards were presented at both the Marin County science and engineering fair and the Alameda County science and engineering fair. Additionally, at the Santa Clara County science and engineering fair, awards went to:

S. B. for her Glaciology project titled “Various Particulate Matter Effects on Ice Melting Rates”
N. M. for her Engineering Geology project titled “Best Type of Soil to Build Small Structures On”
I. X. and F. H. for their Seismology project titled “Using Big Data Analytics to Correlate Slow Slip Events and Repeating Earthquakes in the Nicoya Peninsula Subduction Zone”

And at the Napa County science and engineering fair, an award went to:

A. M. for her Hydrology project titled “Testing the Total Dissolved Solids in Different Water Sources”

Congratulations to all the awardees and a special thank you to the volunteer judges and Lan Ma (SFBA Student Awards for Geoscience Excellence Committee Chair) for organizing the project!
Save the dates for AWG’s 2020 field trip to New Zealand!

Join us for a 2-week field trip to New Zealand with Williams GeoAdventures in late winter of 2020! We have a tentative itinerary with 6 full days on the North Island, featuring tours of volcanic areas, and 8 full days on the South Island, including tours of the New Zealand Alps and Milford Sound. We will have a geologic guide and our own bus and driver on each island, and the price will include air travel both ways between the North and South Islands. In an attempt to keep the price as reasonable as possible, lodgings will be split between 3-star hotels and Top 10 Holiday Parks (nice hostel/budget motel-like lodgings). Our slightly tentative dates (could still shift by a day or two) are **February 26 through March 12, 2020**, and the very tentative price is **$5000** (generally double or triple occupancy). Space will be limited and I expect this trip to fill, so if you’re interested in going, please be ready to sign up when registration opens in the spring. For more information or to be put on the interest list for more timely updates, please email AWG Field Trip Committee Co-chair Marcia Knadle at marciaAWG@aol.com. Stay tuned for further information regarding the price. For more information about Williams GeoAdventures, visit their website at [http://www.geology-adventures.com/](http://www.geology-adventures.com/).

**Congratulations AWG 2018 Chapter Excellence Award Winner!**

The Florida Chapter is the 2018 Chapter Excellence Award Winner! Here is a picture from their most recent event, a fundraiser. Yes, they made those t-shirts and stickers for the fundraiser. L-R Dr. Anita Marshall, graduate student and chapter Treasurer, Theresa King, and Christine Downs.
Takken Student Research Presentation Travel Award

The Takken Student Research Presentation travel award provides women geoscience students with support to present their research at a national or international professional geoscience meeting other than the Annual Meeting of the Geological Society of America. This travel award is named for Suzanne Takken (1925–1997), an avid traveler and strong supporter of women in geoscience. Suzanne spent a long career in Oklahoma City, Oklahoma, as a petroleum geologist for a major petroleum corporation and as a consulting geologist after her retirement. She served terms as president of AWG (1989–1990) and director of the AWG Foundation (1996–1997) and was awarded the AWG Distinguished Service award in 1993. She especially enjoyed traveling to countries in Asia and the Pacific region.

The award is to be used to help defray travel, lodging, registration fee, and other expenses associated with the presentation of the awardee’s research.

The application deadlines are February 10, 2019 and August 10, 2019.

Visit [http://awg.org/awards](http://awg.org/awards) for more information.

Member Highlights

The AWG Editorial Team would like to recognize the many accomplishments of our members by highlighting a different member each month in the Enews. To support our efforts, we are asking AWG members to complete a short questionnaire.

Please download and complete the [members highlights questionnaire](http://awg.org/awards), and send your completed form with photos (and captions!) to enews@awg.org. We will be collecting questionnaires year round, so if you don’t have time now don’t worry—we’ll remind you again!

If you have questions, or a recommendation for a member we should highlight, please email enews@awg.org.
One-year faculty fellow in sedimentary systems

Colby College, Waterville, Maine

The Colby College Department of Geology invites applications for a one-year faculty fellow specializing in sedimentology and stratigraphy or a related field to begin September 1, 2019. The successful candidate will teach a sophomore-level undergraduate course in sedimentary processes and stratigraphy, as well as introductory geology laboratories and possibly an introductory non-majors course. Ideal candidates will be able to offer field trips to examine sedimentary rocks and/or sedimentary environments in the northeast USA or adjacent Canada. The successful candidate also will have access to instrumentation and facilities in the Department of Geology for research and teaching. These include a powder-XRD, micro-XRF, SEM-EDS, CHNSO Elemental Analyzer, petrographic microscopes, sediment-sieving equipment, rock cutting and powdering equipment, and thin-section-making equipment. The search committee is especially interested in candidates with a demonstrated ability to teach and advise a diverse student population. A Ph.D. at the time of appointment is preferred, but ABD candidates will be considered.

Complete applications will include a brief cover letter, curriculum vitae, statement of teaching philosophy, and three letters of recommendation. Please submit all materials via Interfolio at: apply.interfolio.com/55080. Applications received by January 7, 2019 will receive full consideration, but applications will be reviewed until the position is filled. Inquiries may also be directed to sedstrat19@colby.edu.

Colby is a private, coeducational liberal arts college that admits students and makes employment decisions on the basis of the individual’s qualifications to contribute to Colby’s educational objectives and institutional needs. Colby College does not discriminate on the basis of race, color, gender, sexual orientation, gender identity or expression, disability, religion, ancestry or national origin, age, marital status, genetic information, or veteran’s status in employment or in our educational programs. Colby is an Equal Opportunity employer, committed to excellence through diversity, and encourages applications from qualified persons of color, women, persons with disabilities, military veterans and members of other underrepresented groups. Colby complies with Title IX, which prohibits discrimination on the basis of sex in an institution’s education programs and activities. Questions regarding Title IX may be referred to Colby’s Title IX coordinator or to the federal Office of Civil Rights. For more information about the College, please visit our website: www.colby.edu.
The Department of Geosciences at Princeton University is seeking applications for a tenure-track assistant professor faculty position in geology, broadly defined. We are particularly interested in interdisciplinary scientists who could interact productively with existing faculty working in geophysics and/or climate. Possible fields of specialty include, but are not limited to, petrology, volcanology, tectonics, glaciology, rock deformation, earth surface processes, and paleontology.

Applicants should send a curriculum vitae, including a publication list, a statement of research and teaching interests, and contact information for three references to https://www.princeton.edu/acad Positions/position/9581. Evaluation of applications will begin as they arrive; for fullest consideration, apply by December 21, 2018, but applications will be accepted until the position is filled.

Princeton is especially interested in candidates who can contribute to the diversity and excellence of our academic community. For general information about applying to Princeton and how to self-identify, please link to http://web.princeton.edu/sites/dof/ApplicantsInfo.htm.

Princeton University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

This position is subject to the University's background check policy.

Information about the research activities of the Department of Geosciences may be viewed at http://geoweb.princeton.edu.

Apply online at http://employment.ku.edu/academic/13299BR. For further information contact Geoff Bohling (geoff@kgs.ku.edu) or Don Whittemore (donwhitt@kgs.ku.edu). For further information about other aspects of the position, contact Annette Delaney, HR, at adelaney@kgs.ku.edu or 785-864-2152. KU is an EO/AAE, http://policy.ku.edu/IOA/nondiscrimination.

Associate Director for Research - Kansas Geological Survey (KGS) - University of Kansas, Lawrence

Full-time position to provide strategic collaborative research leadership that supports the KGS mission. The Associate Director for Research (ADR) will report to the Director and interact with Senior-rank academic staff; oversee approximately 14 Kansas Geological Survey (KGS) Assistant and Associate-rank academic and scientific research staff, and their research programs; align the unique strengths of current KGS research programs with research trends and new innovative research opportunities. The ADR also will be expected to lead an externally funded, active research program in an area relevant to Kansas. The KGS is a research and service division of the University of Kansas, and the successful candidate will have the opportunity to collaborate with KU faculty and students in other departments and research groups. Complete announcement/application info at www.kgs.ku.edu/General/jobs.html. Review of applications will begin Jan. 15, 2019.

Apply online at http://employment.ku.edu/academic/13077BR. For further information about the position contact Rolfe Mandel, mandel@ku.edu, 785-864-2171. For further information about other aspects of the position, contact Annette Delaney, HR, at adelaney@ku.edu or 785-864-2152. KU is an EO/AAE, http://policy.ku.edu/IOA/nondiscrimination.
AWG Membership

ENCOURAGE participation of women in the geosciences

- Scholarships
- Girl Scout Activities
- Congressional Visit Days
- Student Awards for Geoscience Excellence (SAGE)
- Outstanding Educator Award
- Geoscientists in the Park,
- Women in the Geosciences Day

ENHANCE professional growth and advancement of women in the geosciences

- Free Resume Review Service
- Domestic & International Networking
- Exciting and Informative Field Trips
- Mentoring

EXCHANGE educational, technical, and professional Information

- GAEA and E-mail Newsletters
- Distinguished Lecturer Program
- Conventions
- Technical Programs
- JobWeb
- Networking with Affiliated Societies

RENEW Online:
http://awg.org/membership/core/CreateAccount.aspx
or mail / fax the form below

MEMBERSHIP RENEWAL / APPLICATION

Name: ________________________________

Mailing Address:
__________________________________________
__________________________________________
__________________________________________

Work Phone: ______________________________
E-mail: ___________________________________

Enclose U.S. Funds, payable to AWG
Payment by: Check   VISA/MC_ Exp. Date: ______
Card Number: _______________________________

Signature:_____________________________________

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Please add the appropriate postage
($12 US/ $15 Outside North America)

AWGF Donation: $ ____________
TOTAL: $ ____________

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