Earth Science WOMEN'S NETWORK

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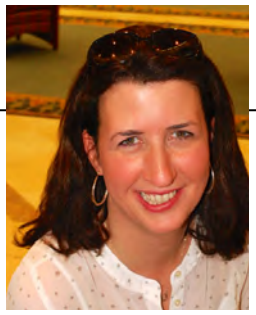
Letter from the ESWN Board

by Tracey Holloway



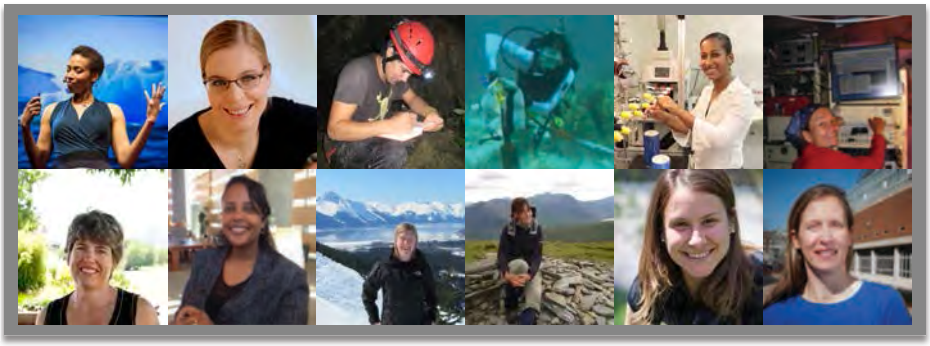
Dear ESWN,

A lot has happened since our last newsletter, in December 2014! Here are some of the highlights:

We now have over 2400 members in the Earth Science Women's Network on http://ESWNonline.org, nearly 1500 members of the ESWN Facebook Group, and over 4100 subscribers to our Earth Science Jobs Network (ES_Jobs_Net, hosted by the National Center for Atmospheric Research, NCAR, at http://mailman.ucar.edu/mailman/listinfo/es_jobs_net). We are growing, and we are active! In the last month we've had 60 different topics discussed on ESWNonline.org; we average about 30 (interesting!) posts a week on the Facebook site; and about 50 jobs a month on ES_Jobs_Net.

Just a few weeks ago, ESWN Leadership Board members Manda Adams and Christine Wiedinmyer, along with former Board member Allison Steiner, published "The Earth Science Women's Network (ESWN): Community-driven mentoring for women in the atmospheric sciences" in the *Bulletin of the American Meteorological Society* (*BAMS*). This great article explains the ways that our informal peer mentoring network benefits underrepresented groups through both online and in-person involvement; it's a nice overview of our activities.

With a $1.7 million grant from the National Science Foundation, ESWN is expanding to serve undergraduate women in STEM. Led by ESWN Board members Emily Fischer, Manda Adams, and Becca Barnes, the team includes experts in psychology, statistics, education, and STEM engagement. The team is recruiting first-year female students to attend a workshop where they will learn about educational and career opportunities and meet peers with similar interests. From there, the students will be mentored in person by local ESWN members. Undergraduate participants will have (continued, Page 2)



Letter from the ESWN Board (continued)

access to a web platform that will enable national-scale peer mentoring, building on the success of ESWN's online community. Read more here: http://eswnonline.org/wp-content/uploads/2015/04/CSU-article-NSF-grant1.pdf.

Over the past few months, we have also really ramped up our member-driven committee activities, to build greater engagement and leadership opportunities within ESWN. So many ESWN members have generously volunteered their time - it has been really exciting to see!! We have committees for many different volunteer opportunities, including a diversity task force, discussion leaders for online forums, web content developers, regional contact people, and more. In fact, this summer newsletter is brought to you by ESWN volunteers in the newsletter committee (thank you!). More updates on these committees are given later in the newsletter. Please let us know if you are interested in volunteering in any of these areas, or if you have a different idea about how you can help ESWN continue to benefit women around the world.

In November of 2014, the ESWN Leadership Board met in my hometown of Madison, Wisconsin, hosted by the University of Wisconsin—Madison. We gave a number of talks on ESWN-y topics, from career development to field work. The Board presented a panel, "Building Communities to Build Careers – Lessons from the Earth Science Women's Network" at the Weston Roundtable (a public seminar – you can check out the webcast here https://goo.gl/jt5Nek). In partnership with the UW-Madison Department of Geography and Women in Geography, the ESWN Board also hosted an informal discussion, "Getting Out in the Field – How to create a positive field experience with a diverse team" that was even mentioned in *Nature.* We hosted a discussion on "Life after the Ph.D. – Q&A for current, recent, and future grads in science and engineering fields." It was a lot of fun – if your university is looking for speakers keep us in mind! In our ESWN meeting, we were able to move forward with developing many of our initiatives, and planning for the future. Thank you to UW-Madison for hosting us! Details are available here: http://eswnonline.org/university-of-wisconsin-madison-hosts-eswn-leadership-board.

At the American Geophysical Union's (AGU) Fall Meeting in December, I served on the panel for "Improving Your Success for AGU Honors: Tips, Tools, and Tactics." This workshop focused on three topics: 1) how to increase diversity of nominations, 2) how to submit a successful nomination from the nominator's perspective, and 3) what constitutes a good nomination package from a selection committee's perspective. The AGU's decision to host this workshop was inspired by discussions on ESWN! Given the low proportion of women and other underrepresented groups nominating, being nominated for, and receiving awards, it is important to figure out what barriers stand in their way, and how we can address them. Read more here: http://eos.org/agu-news/task-force-recommends-ways-to-improve-agu-fellows-program-2. I compiled useful tips from that workshop here: http://eswnonline.org/docs/super-helpful-info-from-agu-on-awards/.

Also at the AGU, Meredith Hastings and I presented at the Heads and Chairs workshop on the topic of mentoring junior faculty. We used some of the facilitation techniques we've picked up from past ESWN workshops, and used the wisdom and experience of ESWN to help attendees (mostly chairs of geoscience departments) think about concrete strategies to support assistant professors: http://education.agu.org/professionals/heads-chairs/. We were especially happy to learn that attendees found this section really valuable in the post-workshop reviews. Some of the attendees said:

"[T]his was quite valuable, especially the discussions surrounding faculty mentoring," "[M]entoring new faculty [is] not something I've done a lot of myself but recognize the value and importance of doing, so guidance about how to go about it was very welcome," and "I especially appreciated being made aware of the Earth Science Women's Network." This was a great opportunity - thanks to ESWN member Pranoti Asher for inviting us! You can see my notes from a discussion at the meeting about how department chairs can raise their unit's visibility within a university here: http://serc.carleton.edu/departments/heads-chairs14/dept_standing.html. I learned so much!!

We hope you enjoy this latest newsletter, led by ESWN Board member Carmen Rodriguez, laid out by Rachel Licker, and representing work from many, many more!

If you want to get more involved, or have ideas to help ESWN, please contact me anytime at eswn_tracey@yahoo.com. Thanks for your engagement in ESWN!!

All the best,
Tracey Holloway and the ESWN Leadership Board

ESWN Leadership Board from left: Erika Marín-Spiotta, Carmen Rodriguez, Emily Fischer, Meredith Hastings, Tracey Holloway, Manda Adams, Rebecca Barnes, and (not pictured) Christine Wiedinmyer

Updates on ESWN's Budget

As many of you know, the Earth Science Women's Network (ESWN) launched as a 501(c)(3) non-profit organization in late 2014. Although we've been operating as a network since 2002, our growth and success had made it increasingly difficult to operate without a formal structure. Thanks to the nearly 300 donors - mostly ESWN members - who contributed to our first fundraising campaign, we were able to launch as a non-profit!

We still operate on a shoestring (and get a lot done!!) but as we ask you and others to support ESWN, I wanted to provide as much detail as possible on what we've done, what we're doing, and what we hope to do next.

Our first fundraising campaign used an online, crowdfunding software called Crowdtilt (now renamed Tilt). The goal of this campaign was to raise $14,000 and form a non-profit — and we succeeded at both! We raised $13,440 dollars and were approved as a US non-profit in November 2014. So, while that first round of donations was not tax-deductible (for U.S. tax-payers), moving forward all donations will be. This ensures that our supporters get some tax benefits from helping ESWN, and enables ESWN to work with foundations, corporate donors, and other private philanthropists who want to advance women's success in science careers. Since forming as a non-profit, we have raised an additional $1,030 - this includes a few private donations through our new PayPal donation system, and the net revenue of our tote bags, fleece vests, and mugs. (You can order a vest or bag anytime at http://eswn.logosoftwear.com - 15% of every purchase goes to ESWN!)

So, all total we have raised $14,474 — exciting!! Where have we spent this money? Our biggest expense was our attorney at $5,588. We worked with a well-respected attorney in Madison, Wisconsin, who specializes in non-profits. She's been amazing, and our process to approval as a non-profit organization was very smooth, despite mountains of paperwork. Our next biggest expense was the IT firm that runs our website, http://eswnonline.org. Although the American Geophysical Union (AGU) hosts our website on their server, a site like ours needs constant upkeep for security and functionality. We have a contract with a firm that maintains the site for $300/month. We have spent $2,127 so far out of privately raised funds for ESWN to keep the website running. A final big expense was Directors and Officers insurance for the ESWN Board, a necessary expense for a non-profit like ESWN, which cost $776 for a 12-month policy. All total, we have about $6,400 left in our accounts - enough to ensure that we're able to pay short term bills. But we need to grow our resources to have a bigger impact.

Before moving on to the future, I want to also recognize the support we are getting for two important costs that are not on our balance sheets. The Univ. of Wisconsin-Madison 4W Initiative funds the only paid ESWN staff person, Colleen Schmit, an (amazing!) undergraduate at UW-Madison. This support is worth about $7,000 per year, and has been generously extended for the next two years. The National Science Foundation now funds the $300/month IT cost of our website, through Grant #1431795 to the Colorado State University, as part of the IUSE (Improving Undergraduate STEM Education) initiative to extend the ESWN model to first-year undergraduate women in science. This support saves ESWN an additional $3,600/year and will continue through 2019. Additional support from units at the University of Wisconsin-Madison supported a 2014 ESWN Board Meeting. Of course the volunteered time of our board members and committee volunteers is priceless!!

Tracey, Meredith, Erika, and Carmen (the Fundraising Committee of the ESWN Leadership Board) meet almost weekly via Google Hangouts to help design our fundraising strategy, and think about ways to connect with donors. At this point, we are working on three main fundraising strategies to support our next steps: corporate sponsorship, private donors, and you - our members.

Please consider giving to support the continued health of ESWN. We have never charged member dues, and we hope we never have to. We are working hard to bring in external support, but at this point we are still dependent on the women (and men!) we serve most directly and who know our work the best. Your support keeps us going, and we are working to leverage your investment to have maximum impact. Plus, it says a lot about ESWN for us to have a high level of donors within the organization – it is a great way to show that our members value ESWN.

As a heads up, some exciting new projects that we'd like to pursue include launching new, interactive ESWN web-based events (ESWN Google Hangouts or webinars) and a 2016 professional development workshop on negotiation skills. We hope you are as excited as we are with the steps we're taking, and feel good about your past and future support for ESWN. To join in, just go to http://eswnonline.org/give. Thank you!!

Past ESWN Events

ESWN @AGU 2014 Recap

The annual Fall Meeting of the American Geophysical Union (AGU) has always been a major spot for ESWN members to meet up, discuss research and career issues, and engage with the broader community. In 2014, we supported the AGU in their reception for early-career women, participated in the Heads and Chairs workshops, engaged in the workshop on honors and awards, and even sold super-cute mugs with the ESWN logo! We also advanced what has become one of our signature events – a day of "mini workshops" that are free and open to all, hosted in partnership with AGU.

ESWN held three mini workshops on Wednesday, December 11, 2014 at the AGU Fall Meeting in San Francisco in partnership with AGU Education. These free mini workshops run 2-3 hours each and are designed with an informal, open-door approach. The target audience is generally early- and mid-career scientists (graduate students and up), though they are open to everyone. Be sure to drop in and tell your friends if you are at AGU in December 2015 – we'll be there!

Navigating the National Science Foundation System

Over 50 participants, male and female, attended this workshop. It began with a welcome address by Roger Wakimoto (Assistant Director, NSF Geosciences Directorate) and an introduction by ESWN Board Member, Meredith Hastings. Meredith Hastings and Jennifer Wade (NSF) facilitated the discussions. Panelists included numerous program officers from NSF's Divisions of Atmospheric & Geospace Sciences (AGS), Earth Sciences (EAR), Ocean Sciences (OCE), and Polar Programs (PLR).

The workshop was organized into three sessions. *Session 1 - What constitutes an effective review* - covered the criteria for NSF proposal reviews and what program officers rate as effective to help in preparing great proposals and reviews. *Session 2 - Early Career Options* - was an informational session about new NSF-wide competitions, upcoming news and highlights from NSF, and early career opportunities (post-doctoral fellowships, AAAS fellowships and CAREER awards). *Session 3 - Connecting with NSF* - offered tips on connecting with NSF program officers, including how to prepare for a helpful discussion on your proposal idea with a program officer. Participants then had the opportunity to meet one-on-one or in small groups with program officers from across the NSF Geosciences Directorate. Some useful documents from this workshop can be found on our site here: http://eswnonline.org/in-person/workshop/nsf/.

About half of the attendees submitted review forms from this workshop. They rated this workshop as very good to excellent in terms of quality, usefulness, and relevance. Some open-ended comments we received included: "A fantastic window into the NSF funding system – the people and processes driving it," "Excellent advice and so great to hear directly from POs," and "Honest, useable information not only for NSF proposal submission but for proposal preparation."

Getting on the Tenure Track and Succeeding

This workshop was facilitated by ESWN Board Member, Becca Barnes, and featured a panel of recently tenured faculty members in Earth Science disciplines, including: Megan Anderson (Colorado College), Maura Hahnenberger, (Salt Lake Community College), Tara Hudiburg, (University of Idaho), Maureen Long (Yale University), and Caroline Masiello (Rice University).

The tenure track can seem mysterious: a few crucial years where new professors build a research program, develop a teaching portfolio, and hope to be promoted. In this workshop, we aimed to de-mystify the process, and share secrets to success. It began with an introduction of panelists and their career paths, followed by an open floor Q&A session. Following that, panelists moved to individual round tables where they could share their experiences and answer questions to a smaller group of participants.

Almost 70% of the ~50 participants submitted evaluations of the workshop and rated it very good to excellent. Some comments we received included: "supportive sharing of personal experiences in this session increased our collective wisdom," "inspiring and reassuring," and "the workshop made me think differently about how to prepare a job application."

Opportunities Beyond Academia

This was a new offering from ESWN @AGU and it was very popular. Facilitated by ESWN Board Member, Erika Marin-Spiotta, the workshop included panelists working outside of academia: Kate Dennis (Picarro, Inc.), Jennifer Pett-Ridge (Lawrence Livermore National Lab), Jessica Thompson (ConocoPhillips), Katherine Hoag,

Past ESWN Events (continued)

Meredith Kurpius, and Dena Vallano (US Environmental Protection Agency), Marcia DeLong (Union of Concerned Scientists), and Julia Rosen (freelance science journalist).

Getting help finding a job in a non-profit or government agency, within industry, or as a consultant can be difficult coming from an academic background – after all, your advisor is an academic and most likely doesn't have "first-hand knowledge." Maybe you want to stay in academia but are interested in working as a consultant or even starting your own business. This workshop discussed practical skills for making the transition to successful post-graduate careers. It began with introductions by individual panelists, followed by small round-table discussion with each panelist who shared their experience, answered questions, and discussed how to find and apply for jobs in policy, federal research labs, state agencies, NGOs, industry, and private enterprise. Attendees moved freely between tables to get the most out of the various experiences of the panelists present.

Over 70 participants attended this workshop! We definitely had a full house and a wide range of age and gender. Some comments submitted in the evaluations included: "One-on-one group conversation was awesome," "The experience of the presenters is very encouraging," "This was a wonderful opportunity to learn about opportunities that may have never occurred to me before," and "Please do this again next year!!" The panelists included a diversity of career choices and disciplinary backgrounds and we will work to include more racial and ethnic diversity as well as panelists working outside the US to better represent the international aspect of AGU.
More details about these workshops (panelists, handouts, etc) can be found on our site at: http://eswnonline.org/in-person/workshop/. Thanks so much for all your feedback and participation! We hope you can join us next fall!

ESWN Member Get Togethers

ESWN members travel the world giving talks, presenting at conferences, working in field sites, and participating in scientific meetings – you name it, we get there! With such busy schedules it's important to find time to connect with new and old friends. If you want to connect with more women in Earth Science, start a conversation on the discussion board, post to the Events Calendar, or reach out to the Regional Contacts. Here are a couple of events where ESWN members have come together this year. Looks like some good times!

In April, ESWN geographers met at the Association of American Geographers (AAG) meeting in Chicago. Thanks to Suzanne Walther for organizing!

In May, ESWN held a get-together during the North-Central Geological Society of America meeting in Madison, WI. Rachel Headley, Mary Jamieson, Angie Dickens, Elena Lopez, Erika Marin-Spiotta (and ESWN fan Ken Keefover-Ring) braved the chilly late spring weather on the campus Terrace.

In June, ESWN and members of Women in Wetlands gathered for lunch at the Society of Wetland Scientists Annual Meeting "Changing climate, Changing wetlands" in Providence, RI. Thanks to Lori Sutter for organizing!

Clockwise from lower left: Vanessa Tobias, Ryan Cressey, Bianca Pier, Cindy Palinkas, Katharine Schleich, Martha Carlson Mazur, Casey Judge, and Sara McMillan

ESWN Member Get Togethers (continued)

From the left: Lori Sutter, Vanessa Tobias, and Ryan Cressey

In addition to get-togethers at meetings, ESWN members also meet up on regional and local scales. There have been member-organized get-togethers from Salt Lake City, UT, to Princeton, NJ. Members in DC (ESWN – DC Chapter) meet for happy hours that rotate between Silver Spring, MD and downtown D.C. They cover a broad spectrum of Earth science professionals, from NOAA, NASA, the University of Maryland, and the USDA. Thanks to Kathryn Miretzky for sharing that info! If you are new to an area, visiting, or ready to meet new people, consider joining a local ESWN group or reaching out to folks on the site!

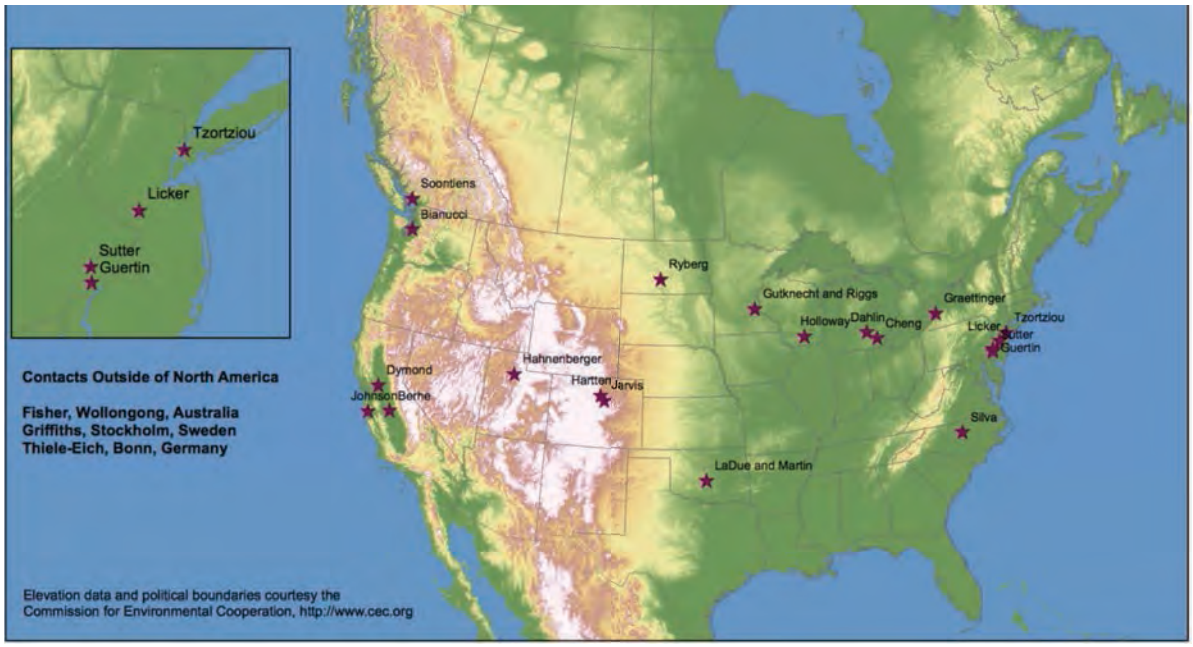
New ESWN Volunteer Opportunities

Karen Ryberg, Ph.D.
USGS North Dakota Water Science Center

ESWN has many opportunities for our members to volunteer their diverse talents. Committees were organized in early 2015, and in the future we would like to highlight their successes and lessons learned. Here are updates from some of the committees.

Volunteers were solicited for this **newsletter** resulting in some new ideas and an increase in the frequency of the newsletter. ESWN has generally published one newsletter a year, around the time of AGU in December. As our network has grown, the newsletters have gotten chunkier, hence this summer newsletter. Coordinators were identified for different sections in the newsletter and we hope to get updates and stories from a broad range of other ESWN members as we move forward.

Regional Contacts have volunteered to improve connections in their parts of the world from California, to Canada, to Sweden and Germany and promote some networking opportunities. The map below shows where these people are located in the U.S. and Canada, and lists those in other parts of the world. Check http://ewsnonline.org for notices about events in your area.



Locations of current ESWN Regional Contacts

New ESWN Volunteer Opportunities (continued)

Fundraising is moving ahead in two ways. First, a committee of ESWN Board Members – Tracey Holloway, Meredith Hastings, Carmen Rodriguez, and Erika Marín-Spiotta - have online weekly meetings to discuss fundraising priorities, approaches, and action items. The group has put together materials to engage private and corporate supporters, and they are active in looking for corporate sponsorship for ESWN activities at the 2015 AGU Meeting and events in the future. Tracey and Meredith have also reached out to volunteers who flagged fundraising as an interest area on the survey. This wider fundraising committee has not yet come together, but anyone interested in helping this process (and/or getting hands-on experience in institutional fundraising) is invited to join in. Just email Tracey at eswn_tracey@yahoo.com.

The **Awards Committee** organized in February to work on AGU Awards and Medals submissions. The lack of diversity in the 2014 AGU awards was a much discussed subject on the ESWN discussion forums. AGU Honors is an important focus for making a difference and this is highlighted by a few statistics provided by Tracey Holloway. Last year 153 submissions were received for 29 awards. Of those, only 33 were for women, and only 22 nominations were from women (and most of those were for men). The ESWN web site now has tips and strategies for AGU Honors.

Other volunteer opportunities include being a discussion leader for online forums, design and marketing, web content development, job resources helper, event organizer, and a diversity task force. Committees, specific tasks, and contacts can be found at http://eswnonline.org/eswn-volunteer-opportunities/

Perspectives from our Members: Career Paths Less Traveled

Alison Graettinger, Ph.D.
University at Buffalo

When talking about career paths the expectation is that you pick a direction, go to school, and then get a job. We all know that life is far more complicated than that, but we rarely get to see how the path less travelled leads to career success and satisfaction. It is important for women early in their career, or desiring to change their career, to see examples of how many paths can lead to the ideal career. Mentors also need help in advising students on different paths: starting their academic career later, migrating out of or back into academia. For this reason I have asked a few ESWN members to share their non-obvious paths and consolidated some of the best snippets here. I hope these spotlights will help inspire other members to share their stories of the path less travelled to help inspire our students and peers to reimagine a "good" Earth science career path. I would also encourage first generation PhDs to share their experiences to help us see what real career paths can look like.

The power of taking risks and networking

Emily Mercurio, Ph.D., P.G.
Cabot Oil and Gas
Pittsburgh, Pennsylvania

After Emily Mercurio got her BS in Geology at Pennsylvania State University she faced a rough job market and had ambitions to be one of the 'good guys' by avoiding oil and gas. So she headed off to graduate school to study volcanology at Michigan Technological University. Hoping to get a career quickly afterwards she took a risk and moved across the country. From her friend's couch she sent out resumes and asked for onsite visits at companies she liked, even when they weren't advertising any positions. The power of these face-to-face interactions turned into a 9-year career in GIS and remote sensing starting with GeoInsight International in California and then the Institute for the Application of Geospatial Technology in New York. During this time Emily also got married and had two kids.

Working through this period of her career enabled Emily to collaborate with research academics and said "I found this collaborative work to be the most enjoyable because we were developing new technologies and methodologies that had practical applications for real-world problems. I also felt I had more to learn." So Emily took another risk and started a PhD program in volcanology back in Pittsburgh and says "it's hard enough to start a Geology PhD program when you are fresh out of a B.S./M.S. program. It's a completely different thing to start it after you've been out of academia for 9 years and you have kids in diapers!" And through pure will and determination, some great childcare, and treating her PhD like a job, Emily finished with some awesome experiences in Iceland and research under her belt. But in order to stay near her hometown Emily had to finally acknowledge the absence of volcanoes anywhere

Perspectives from our Members: Career Paths Less Traveled (continued)

near the east coast and look for other means of employment. With a healthy curiosity, and the maturity brought on by years of experience, she realized that she was interested in how the oil and gas industry operated in Pennsylvania. She actively built herself a network of engineers, petroleum geologists, and industry scientists and found a company that was a great place for environmentally conscious geologists who are passionate about exploration. Emily describes her current job with satisfaction saying that she uses all of her past 20 years of experience "everyday on the job and am continuously acquiring new knowledge and skills." She also says "As I look back through my career I now see that it was the risks I took that brought me to the next level."

Support and experience

Karen Ryberg, Ph.D.
USGS North Dakota
Water Science Center

Karen Ryberg had at least four different declared majors in college before earning her BS in Mathematics with a minor in Latin. She had no real idea of what to do after graduation but found a job in telecommunications engineering. She gained experience in outside plant engineering and IT, but was turned down for jobs because her degree title didn't match the job description, despite her practical experience. This motivated her to return to school to get a two-year degree and have documentation of her computer experience. While in school, she got an internship with the USGS North Dakota Science Center to help with their website. Despite no plans from Karen, or the USGS, to make this a long-term position, Karen was able to maintain her student status long enough for the timing to work out and a permanent position to become available.

While at the USGS, Karen was able to work towards her masters degree in statistics and later a graduate certificate in Data Mining and Applications. After being encouraged by her boss, and seeing the number of colleagues with PhDs, Karen determined that she needed a PhD too. She defended her PhD in Environmental and Conservation Sciences this April at the age of 42. She says "I never expected such a complicated career path, but I have ended up in a good place, work with some wonderful people, and I think I have enough years left in my career to make the Ph.D. worthwhile."

Ask yourself good questions

Harmony Colella, Ph.D. Postdoctoral Research Fellow
Arizona State University
School of Earth and Space Exploration

Harmony Colella studies subduction zone processes and revealed an amazing capacity to ask herself important questions throughout her academic journey. She began her education at a two year college at 17 and quickly transferred to Arizona State University with a plan to major in engineering. After two years, she realized engineering was not right for her, and she quit school. After time away and a move to California, Harmony realized that she wanted to study geology. Having a clear goal made it easier to focus and make it through her PhD, with the motivation and direction that she lacked at a younger age. She was unprepared, however, for the difficult transition from student to postdoc – the challenges of the postdoc lifestyle are rarely discussed. Now, in her second postdoctoral fellowship, Harmony finds herself contemplating good but difficult questions: "What is success? What part of my job do I like? What is going to make me happy?" Her very honest answers are good food for thought for fellow scientists at any career stage.

Harmony says: "I know that I LOVE science and being a scientist, but there are definitely parts of the "academic" lifestyle I do not LOVE (e.g., feeling like I have to work all the time, the guilt when I am not, what feels like constant rejection in the job market). There are other aspects I feel VERY LUCKY to have (e.g., traveling to places I never dreamed of, flexibility in my daily schedule, intellectual freedom). I like research much more than I thought I would when I started my PhD. I have a love/hate relationship with teaching. I have learned that I love to write and/or edit, which I often find ridiculous to realize. And I find mentoring the most rewarding part of my job. However, I am ready to stop moving - no one tells you how unstable life can be after your PhD."

The perspective Harmony has gained from her changing career path required that she ask herself hard questions, honestly answer them, and ask them again. We should continuously ask ourselves these questions to maintain an appreciation of what we like, recognition of what is important, and leave room for improvement.

Managing that To-Do List: A Review of Two Online List Management Tools

Jen Martin
ESWN Member

I love To-Do lists. Lists keep me sane. Until, like snowflakes piling into huge drifts, they become too difficult to manage. One day this spring, suffering through a bout of unemployment, I found myself becoming paralyzed by my lists, bewildered by too much to do and unsure what to do first.

When ESWN member Maura Hahnenberger wrote a post on the discussion board about her favorite productivity tool, I thought I'd give it a try. There are several good methods and products mentioned in the thread Productivity Tools and Apps, but I'm focusing here on the Personal Kanban method and on the tools KanbanFlow and Trello.

The Personal Kanban method is a flexible paradigm that helps you visualize and prioritize all your To-Do items. You start with three categories: a list of backlogged items, items you are currently doing, and a category to put in items you've completed. You can add more categories to suit your needs, but the last two categories are the key.

Rather than listing everything that needs to get done, and becoming overwhelmed, select only the items you can reasonably accomplish, say in one day. Those go in your "doing now" category, the only items you should focus on. The Kanban method encourages you to set a pre-defined max number of items in this category. The "done" category, while I initially thought was a little bit silly – why not just delete the item from your list? – is actually helpful psychologically. It gives you a tiny boost as you transfer each item into the "done" category, and watch it grow.

One of the things I especially like is that you can be as low-tech or as high-tech as you prefer. You can put your items on multi-colored sticky notes and arrange them into columns on a whiteboard or cork board. Or you can use software tools like KanbanFlow and Trello on your computer, smart phone, or tablet, and collaborate with co-workers.

So – did it work? Starting each day at my computer and pulling items from my "backlog" list into my "doing now" list did indeed help me prioritize what I needed to do for the day. It also helped me actually accomplish things instead of flitting from task to task and feeling like I wasn't getting anywhere. Before using this method, I often found myself doing what was easy rather than what was important, and procrastinating on important tasks until the last minute. While this method was no cure for procrastination, I found that it did help. And being unemployed, I appreciated the extra little psychological boost of being able to see my "done" category steadily grow.

After reading recommendations from ESWN members, I decided to test two online applications: KanbanFlow and Trello which allow you to use the Personal Kanban method with ease. Both have free basic accounts, as well as optional premium accounts for a monthly fee. Both are flexible and highly customize-able. (See the table below for a comparison of features.)

	KanbanFlow	**Trello**
Supported Formats	Online. Access on smartphones via URL optimized for mobile browsers.	Online (Chrome, Firefox, Safari 6+, Internet Explorer 10+); iPhone/iPad, Android, Kindle Fire, Windows 8 app. Most mobile browsers including Safari on iOS 8, the Android 4.0+ browser, and Internet Explorer 10 onWindows Phone 8.
Set a deadline for each task	Yes	Yes
Each task can have a checklist	Yes	Yes
Color-code each task	Yes	Yes
Text categories for each task	Yes	Yes
Search and Filter	Yes (with paid service)	Yes
Attach files to task	Yes (with paid service)	Yes
Calendar view of tasks	No	Yes
Integrated timer	Yes	No
Insert an image as task thumbnail graphic or "cover art"	No	Yes
Cost of Premium Version	$5 per month	$5 per month

Managing that To-Do List (continued)

KanbanFlow seemed slightly more intuitive. The color coding and labeling was easier to use, and the layout on screen is more compact, which can be helpful if you have lots of items. You can use a minimum or expanded view to show the full check list. I found the check list view to be very useful when moving an item from the "backlog" to "doing now" list. A unique feature of KanbanFlow is the built-in timer, good for time management and motivation. Psyching myself into working on a tough task for a short time, say 20 minutes, helped me to get over inertia and dread, and I found myself working on difficult tasks for much longer than the initial 20 minutes.

One of Trello's unique features is the calendar view. Many of my items had deadlines, and the calendar view was a great help in the morning as I was building my prioritized list for the day. Other features of Trello are the ability to search and filter items, and the ability to add attachments. KanbanFlow offers these only in the paid version. Trello also seems like it would be great for collaborating – it keeps a running log of edits to each item – but I found this feature somewhat annoying.

Both apps are accesible via your favorite browser, additionally Trello seems to offer more options for mobile devices. I only tested the browser versions, so be sure to check the support pages for more information about compatibility.

Which app is better? I would rate both as equally good – and free is a price that's hard to beat. I encourage you to try either one – or try using sticky notes and a cork board. It's worth a shot and you might end up finding a permanent way to tame that never-ending mess of To-Do lists.

ESWN Members Reach out to Young Female Scientists

Elaine Godfrey, Ph.D.
Academic Coordinator
University of North Carolina at Charlotte

ESWN is expanding to serve undergraduate women in STEM, with a recent $1.7 Million grant from the National Science Foundation (award number DUE-1431795) led by ESWN Board Members Emily Fischer, Manda Adams, and Becca Barnes, and ESWN member Sandra Clinton. The team includes atmospheric scientists, biogeochemists and experts in psychology, education, statistics, and STEM engagement, who will lead a study over the next five years to explore the benefits of mentoring for supporting undergraduate women's interest, persistence, and achievement in STEM generally, and in the geosciences specifically. The team intends to bolster the number of female undergraduate students earning degrees in the geosciences or going on to graduate school in these fields.

YOU CAN GET INVOLVED!

We need a diverse group of female geoscientists from a wide variety of career paths—faculty, researchers, graduate students, post-docs, and other professionals from the private, academic, and public sectors to:

- Serve as mentors, meeting once a semester with students
- Sit on a one-hour panel discussion at an October workshop
- Provide real-life photos or bio-sketches for the website

If you would like to know more, get involved, or recommend female graduate students or post-docs to participate in the workshops, please contact Elaine Godfrey (elainegodfrey@uncc.edu) for the Carolinas or Ilana Pollack (ipollack@rams.colostate.edu) for the Front Range.

Starting in the fall of 2015, the team will recruit first- and second-year college women interested in the geosciences (from any STEM major) from institutions in two geographic regions: the Front Range and the Carolinas. Fifty undergraduate students from Colorado State University, the University of Colorado-Boulder, and the University of Wyoming will be invited to attend a workshop at YMCA of the Rockies in Estes Park, CO in mid-October. The following weekend, 50 students from the University of North Carolina at Charlotte, Duke University, and the University of South Carolina will be invited to attend a similar workshop at Camp Canaan in Rock Hill, SC. We are looking for several female graduate

ESWN Members Reach out to Young Female Scientists (continued)

students and post-docs from these institutions who can attend the workshops and serve as mentors for the first- and second-year students. Let us know if you are interested! At the workshops, students will:

- learn about geoscience educational and career opportunities
- meet peers with similar academic interests
- gain better self-awareness of their values, strengths, and liabilities for a career in the geosciences
- expand their psychological, social and institutional resources for a career in the geosciences

After the workshop, the program participants will have access to geoscience-related information, biographical sketches of real women geoscientists, and educational and professional resources through a web platform hosted by ESWN. Through this platform, they will be able to interact with each other and mentors via discussion forums. In addition to electronic interactions, they will also meet with female role models via scheduled get-togethers at each institution.

Summary of ESWN Discussion Forums

Sarah Anderson
Ph.D. Candidate
Washington State University

Lisa Rausch, Ph.D.
Post-doctoral Researcher
University of Wisconsin-Madison

Colleen Schmit
ESWN part-time staff & undergraduate
University of Wisconsin-Madison

Carmen Rodriguez
Ph.D. Candidate
University of Miami

As all of you who read the ESWN discussion forums know, there is a lot of wisdom in this group!! Whether major life changes, or day-to-day conundrums, ESWN members ask questions and share experiences through the ESWN Discussion Forums on http://eswnonline.org, as well as on our active Facebook group. Here we focus on the Discussion Forums which are accessible from the private network side of the site. The discussion threads are archived and searchable, so you can seek out topics even if you missed the original discussion.

Over the past couple of months, discussions have spanned a wide range of topics: adapting to a new surname so you remain linked to previous publications; preparing for nursing accommodations or childcare when traveling; strategies for social hour mingling and networking; and recommendations for combating sea sickness - think ginger anything, herbal teas, sea bands, and quick naps! Whatever the challenge, with over 2000 members … it's likely that someone has innovative resources to share. That's why we call ESWN a peer-mentoring network… a way to find the right mentor at the right time!

The General ESWN Discussion Forum is the most active, where members post about anything relevant to the interests of women in the Earth sciences. We recommend new members join this forum first – many of us have every post emailed, so it is easy to feel plugged in to the community and active topics of discussion. Members can also join specific discussion groups, perfect for discussing the ins and outs of specific research areas, life stages, local communities, and more. Below we have summarized some of the more popular discussions taking place on the forums this year.

Writing with students

Mastering the writing process can be a challenge for both students and teachers. One member queried the group for advice on alleviating frustrations and improving student success. Several tips and resources were shared from

Summary of ESWN Discussion Forums (continued)

both faculty and student perspectives. The most suggested recommendation: take time to sit down and go through writing together. This type of meeting may include going over comments, corrections, or down to the level of sentence-by-sentence critiquing. Other tips: focus on one issue per draft, and transition from a critique of broad content to the details of writing and style. Others suggested being aware of different writing styles, and communicating clearly in comments (clarify what are suggestions versus corrections). Another tip was to have students write progress reports, as these provide ways to practice writing, record interim results, and prepare for manuscripts. One member quoted, "the first draft is the downdraft; you get it down. The second draft is the updraft; you fix it up." Good luck getting the writing down and fixing it up!

Titles, titles, titles

This discussion was spurred by an article from Inside Higher Ed about how titles and etiquette in communication are applied differently to individuals of different genders and ethnicities. A general consensus of the discussion was to err on the side of formal as opposed to informal, i.e., "Hey" is not a professional email salutation. Setting a tone of formality and authority early, on the first day of class, was a common approach. This included making one's title clear and even dressing more formally than usual. Of course, professional dynamics (and associated lack of appropriate formality) often extend beyond the classroom, so tips were shared on developing effective working relationships in other contexts.

Women less interested in academic research careers

This discussion was ignited by an article finding that interest in academic careers decreased for women and underrepresented minorities throughout their graduate careers but remained about the same for white men. The article didn't address *why* this trend was observed, but several members posted ideas and personal anecdotes that supported the article's findings. Some of these potential drivers included work-life balance, lack of role models, imposter syndrome, micro-aggressions, competitive environment, and the two-body problem.

Department investigated for sexual harassment

An article describing the experience of an academic department undergoing an external evaluation for sexual harassment launched an active discussion on ESWN. Members were generally impressed that an external review was conducted. Still, some questioned the effectiveness of this approach, wondering whether this type of process could have put individuals on the defensive and undermined the bigger goals. Different approaches for addressing inappropriate and unsafe behavior at work were discussed, including documenting the issues in writing, expressing one's discomfort directly, or getting the support of a trusted colleague. Utilizing the resources of one's institution can also be very effective, such as speaking with a superior, department chair, ombudsperson, or similar to resolve the issue.

Female scientists in the media - challenges

This interesting discussion was inspired by one member's conversation with an editor of a science television program. The editor found it difficult to recruit female scientists willing to comment on their scientific field in general, rather than on their personal research. As some members noted, reluctance to speak up on a broader platform may stem from perceived and often real risks to the personal and professional lives of women.

The concept of the *double-bind dilemma* for women in leadership was also discussed - where women run the risk of being seen as too feminine to be effective leaders, or too masculine, and consequently disliked, if they demonstrate traditional leadership traits.

Commenters on this forum encouraged ESWN members to be representatives of science in the media and advised women to get support from peers, speak out against inappropriate commentary or backlash, and emphasize credentials to interviewers so that your legitimacy and expertise support you. Training resources for communicating science were also discussed (through The Union of Concerned Scientists and the National Science Foundation).

In a related discussion thread, members shared video sources of women discussing and rocking their science in the lab and out in the field. These are perfect for inspiring young (and would-be) scientists!

How to change your research focus

How do you "pivot" in science, moving out of an established area of expertise and try something new? Several members recommended forming collaborations where you can apply your existing skills and knowledge base to a new focus. The collaboration may be with a "peer," but also consider a student which offers joint learning opportunities. Other members suggested that the post-doc period can be a good time in one's career to change focus.

Ethics of advertising a half-time postdoc position

Can a training position that shapes your future career, and is never 9-to-5, ever be "part-time"? Is it even ethical for a supervisor to design a part-time post-doc position? Many academic positions do not have set hours, so a half-time postdoc could be pressured to work as much as a full-time

Ethics of advertising a half-time postdoc position (continued)

employee but be paid less. Although the concerns were considered, others noted that a half-time position could be ideal for those seeking flexibility in their schedules, and may be a reality of tight budgets and limited research funding. To balance the pros and cons, early and clear communication of expectations, including working hours and benefits, can create a positive experience for both post-doc and mentor.

Blog post on slowing down in academia

One ESWN member shared her blog post where she discusses the struggle, familiar to all scientists, of maintaining one's health, personal relationships, and other elements of a balanced life while continuing to succeed in competitive and intense careers in science. The post resonated with several members and the discussion echoed suggestions about being willing to say "no," making time for the things that make one feel healthy and grounded, and remembering to regularly reevaluate your personal needs.

In the post seeking advice on the academic interview process, members discussed how to structure a compelling job talk, package various research projects into a cohesive story, and present future research directions. In the post applying for faculty positions at liberal arts colleges, members encouraged emphasizing how one's research projects can include undergraduates as participants and how to demonstrate teaching experience. In addition to TA'ing and lecturing, involvement in workshops or other temporary sole-instructor positions are good experiences to highlight. In the post about how to proceed in a job interview when asked about your desired salary, members considered improving negotiating power by researching salaries beforehand, and avoiding giving the first number. Multiple members recommended the book "Ask for it: How Women Can Use the Power of Negotiation to Get What They Really Want."

Discussion Groups

The specific discussion groups have also been very engaged this year. In the ESWN Moms Group, members shared their thoughts about being "out" as a mom, which is to say being open about being a scientist with children. There is a general feeling that being "out" as a woman can lead to the assumption that she is less dedicated to science, whereas the response for an "out" father may be more favorable. Thus, this is a complicated issue for women in science. The world of "out" can also extend, in general, to interests outside of work. Some members felt good about expressing their value for the other elements in their lives to support and encourage work-life balance.

In the Writing Accountability Group, members add weekly to monthly writing goals to a group spreadsheet and check in with their progress – way to go group! Two new groups, the Broadening Community – ESWN Diversity Task Force Group and the Awards and Recognition Group were formed this year and have also gained a lot of momentum!

Life inside NSF: Insights from an NSF Program Director

Manda Adams, Ph.D.
Program Director
Education and Cross-Disciplinary Activities
NCAR and Facilities Section,
Atmospheric and Geospace Sciences Division
National Science Foundation

Hi ESWN! As many of you may know, about a year ago, I left academia and came to work as a Program Director at the US National Science Foundation (NSF). Having been at NSF for nearly a year now, I wanted to offer as much insight as I can to what it is like to work at NSF, as well as advice to all of you as early career investigators. Below are the most common questions I receive related to my job at NSF:

Q: What exactly does a program officer do and what skills are needed for the job?

I view my job as working to ***enable science*** by ***ensuring a fair review process*** and ***making informed recommendations*** on how tax payer money should be spent on science. Program Directors oversee all aspects of the review process, from helping to craft solicitations, to checking that submitted proposals are compliant, and making informed recommendations. The skills and abilities that I have found essential in this job are: having good written and oral communications skills; being organized; paying attention to detail; keeping confidential information; building and maintaining a robust network of diverse colleagues; working well on a team; negotiating; and seeing the big picture.

Q: What is a typical day like at NSF?

There really is no typical day! Some days I am in back-to-back meetings for 8 hours straight. Some days I am in my office all day reading and analyzing proposals. Other days I have panels in session and spend all day with people like YOU who are providing us with your insights, opinions,

Life inside NSF: Insights from an NSF Program Director (continued)

and expertise related to a set of proposals. There are days I am on "official business" outside of the office which could be for a professional society meeting, a site visit, attending an NSF-funded workshop, or visiting a university to talk about NSF programs. I spend a lot of time interacting with PIs - answering questions about a solicitation, talking about their reviews, or calling them to give the good news that I am recommending their proposal for funding. I also get the opportunity to work with other agencies on things such as joint programs or field campaigns or reports to congress. And then there are some things I get to do that are hard to describe and always different… For example, this summer I have been working with *NBC Learn* which is producing a series of videos about disasters that highlight NSF-funded investigators. So I get to recommend PIs for the team to interview, provide edits to draft scripts, and provide feedback on rough cuts of the videos.

Q: If I become a rotator how will that impact my current research program?

NSF Program Directors can be approved to spend up to 50 days a year on their own independent research. I currently work on an NSF-funded IUSE grant with a team of fellow ESWN members. While at NSF, program officers cannot receive funds from a grant and must put someone in place as a substitute PI on any active grants they have. However we can spend time on grant related work, and any travel related to the grant (conferences, field work, collaborations, etc.) is paid for out of a separate pot of NSF money. It is challenging balancing an active research program and this job, but there are mechanisms in place to allow for that balance.

Q: What can I do to become a more successful PI?

1. **Carefully READ the solicitation details.** Anything that NSF specifically asks to have included in the proposal is done so with very careful thought. What might seem like an oddity to you is typically being asked because either a) it is necessary for us to efficiently manage the review process or b) it is necessary for us to appropriately evaluate whether the intellectual merit and broader impacts meet the goals of the solicitation.
2. **Communicate with your program officer.** I see too many PIs trying to convince us that a program or solicitation fits their project, rather than proposing an idea that fits the program or solicitation. We really want young PIs to be successful, and thus if you send a Program Director a one page description of your project, most program officers would be willing to let you know if the idea fits within the scope of their program. We would much rather tell you *before* you submit a full proposal if your idea is beyond the scope of what we fund, or if it lacks essential components to be competitive.
3. **Volunteer to review proposals for a program.** NSF is always looking for reviewers and panelists! Don't be afraid to email your Program Director, or the Program Director of a program to which you are considering submitting a proposal, and offer to be a reviewer. You might want to attach your CV to the email. If you are not sure which programs you would be interested in reviewing for, feel free to send me an email (amadams@nsf.gov). I cannot stress enough how important it is to keep your website and profiles on professional networks (ESWN, LinkedIn, etc.) up to date! Often these places have more updated information on what you are working on (and thus your breadth of expertise) than your CV will indicate via publications. I personally have found many first time reviewers/panelists by searching our own ESWN membership database!

Member Updates

Sarah Anderson
Ph.D. Candidate
Washington State University

Lisa Rausch, Ph.D.
Post-doctoral Researcher
University of Wisconsin-Madison

Asmeret Asefaw Berhe congratulates **Emma McCorkle**, who graduated in December 2014 with an M.Sc. in Environmental Systems from University of California - Merced. **Asmeret** also published a high-profile paper in *Science* on the importance of soils for human security, along with fellow ESWN member **Ester Sztein** and colleagues. The paper generated a lot of media coverage, including articles in the Independent UK and Grist; the complete list of media coverage can be found on the webpage of the U.S. National Committee for Soil Sciences, of which **Asmeret** is a full member and **Ester** is a manager. The publication of the paper coincided with 2015 being the International Year of Soil.

Member Updates (continued)

Brittany Huhmann traveled to Bangladesh twice this year to conduct ongoing research on the impacts of arsenic in irrigation water on rice agriculture. She discussed her January fieldwork in AGU's Stories from the Field (americangeophysicalunion.tumblr.com/post/110254550213/stories-from-the-field-arsenic-in-field-soils). She has also been working with State Rep. Dan Kelley of Iowa to draft a bill to improve arsenic testing of private wells in the state, including developing a strategy for introducing the bill in a future legislative session.

Erika Marín-Spiotta congratulates **Laura Szymanski**, who defended her M.S. in Geography from University of Wisconsin-Madison. **Erika** was fortunate to participate as a leader in the "On the Cutting Edge Preparing for an Academic Career in the Geosciences" workshop that was held from May 31 to June 3 at UW-Madison where she learned a lot of new tips, and shared what she'd learned from past ESWN professional development workshops.

Jill Marshall was awarded an NSF Earth Sciences Postdoctoral Fellowship to quantify how tree roots damage, disrupt, and detach bedrock in order to develop a soil production function. She will be based at Berkeley and the University of Colorado.

Laura Guertin was promoted to the rank of full professor at Penn State Brandywine. Laura is the first female STEM faculty member at Penn State Brandywine to earn the rank of full professor. She hopes to be a trailblazer for more to follow!

Lois Wardell's research on the NavSonde (a NASA-funded guided dropsonde that can measure and sample volcanic plumes) was featured in WIRED magazine in May. The NavSonde addresses a technological need to be able to access high altitude hazards, such as volcanic ash clouds. Her team will conduct their first volcano missions later this year (https://latitudeengineering.com/case-study/navson/).

Amy Keesee published an article on her education and public outreach work in The Earth Scientist, which is the journal of the National Earth Science Teachers Association. The article is available at http://www.nestanet.org/cms/sites/default/files/journal/Keesee_TES_Spr2015_separate.pdf. The students described in the article attended the launch of the NASA Magnetospheric Multiscale (MMS) mission in March, along with Amy and her family. Amy also welcomed her third child, Curt McCarren Keesee (9lbs 7oz and 12 in), on May 1!

Tracy Twine congratulates her first PhD student, Hong Xu, who graduated in May in the Land & Atmospheric Sciences program at the University of Minnesota.

Summer Olendorf graduated with a Ph.D. in Geophysics from the University of Wisconsin-Madison.

Marian Peters graduated with a B.S. in Geosciences from Penn State.

Robin Schneider defended her dissertation to graduate with a Ph.D. in Geochemistry from the Colorado School of Mines.

Lisa Rausch published two papers on land use change and environmental impacts of soy production in the Brazilian Amazon, both co-led by her and other women - with Holly Gibbs in *Science* and Rachael Garrett in *Journal of Peasant Studies*. Lisa also gave invited lectures on this topic at Luther College and at Brown University.

Louise P. McGarry graduated with a Ph.D. in Ocean Science and Technology from Cornell University in May 2014. Her dissertation is titled: An Examination of Blue Whale Foraging and its Krill Prey Field in the Monterey Bay Submarine Canyon. Louise is now a post-doc at Cornell and is stationed at the Friday Harbor Marine Labs on San Juan Island off the coast of Washington. Her current project uses acoustic telemetry to study rockfish behavior. She has also been teaching Marine Bioacoustics for Cornell at the Friday Harbor Labs and will continue teaching in the fall.

Melody Bechberger wrote a review paper and gave a short course on applications of cathodoluminescence imaging of sedimentary rocks, which was published by the Mineralogical Association of Canada.

Karen Ryberg received a Ph.D. in Environmental and Conservation Sciences from North Dakota State University in May 2015.

Juliet Kinney started a new position as a Hydrographic Analyst at ERT, Inc. She serves as the team lead on the Super Storm Sandy Integrated Ocean and Coastal Mapping (IOCM) project at the NOAA Joint Hydrographic Center/Center for Coastal and Ocean Mapping (CCOM) at University of New Hampshire in

Member Updates (continued)

Durham, NH. The focus of the IOCM Sandy project under the NOAA contract is to re-use bathymetric mapping data collected by many agencies and institutions, for various purposes, after Sandy. The project aims to incorporate research methods used by UNH researchers, to evaluate different approaches to develop baseline maps and better autocharacterization techniques and analyze changes in morpholgy (bathymetry), habitat and sediment types, and to develop more effective disaster response strategies.

Deb Glickson served as the study director on "Sea Change: 2015-2025 Decadal Survey of Ocean Sciences," a National Research Council report that was sponsored by the National Science Foundation. This project called on a group of 20 expert volunteers who made a series of strong recommendations about restoring funding to research programs in NSF's Division of Ocean Sciences. NSF has recently responded to the report and will adopt almost all of the recommendations in the report. The report and response are available at http://nas-sites.org/dsos2015

Jenny Fisher will join the University of Wollongong, Australia as faculty in the School of Earth & Environmental Sciences and the School of Chemistry in October of this year.

We would like to congratulate several ESWN members being recognized by the INSIGHT Into Diversity 2015 Inspiring Women in Stem Award: Erin Pettit, Laura Guertin, Meredith Hastings, Tracey Holloway and fellow geoscientist Anne Douglass are among the 100 women recognized. This award honors "women who inspire and encourage a new generation of young women to consider careers in science, technology, engineering, and mathematics. Honorees will be recognized in the September 2015 STEM issue of *INSIGHT Into Diversity* magazine." Clearly, inspiring women all around. Keep making a difference, ESWNers!

Finally, many thanks go out to all of the members who have volunteered with this newsletter, and special thanks to Rachel Licker for her graphic designing skills!

Emily Fischer guest lecturing at UW-Madison.

Carmen Rodriguez presenting at UW-Madison.

ESWN workshops at AGU 2014.