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Schedule and Events Summary

Sunday, December 14

Heads and Chairs Workshop

InterContinental San Francisco – InterContinental Ballroom B
(7:30 AM – 6:00 PM)

Monday, December 15

Improving your Success for AGU Honors: Tips, Tools, and Tactics

SF InterContinental – Grand Ballroom
(10:00 AM – 11:30 AM)

AGU Ice Breaker

Moscone South – Hall C: Exhibit Hall
(6:00 PM – 8:00 PM)

Tuesday, December 16

Networking Reception for Early-Career Female Scientists and Students

Westin Market Street – Metropolitan Ballroom 1 & 2
(6:00 PM – 7:00 PM)

Wednesday, December 17

ESWN presents three workshops
San Francisco Marriott Marquis – Golden Gate C2

Navigating the NSF System

(9:00 AM – 12:00 PM)

Getting on the Tenure Track and Succeeding

(1:00 PM – 3:00 PM)

Opportunities beyond Academia

(3:00 PM – 5:00 PM)



Letter from the ESWN Leadership Board

Greetings from the ESWN Leadership Board! It is our pleasure to share this 2014 newsletter and to update you with the goings-on of the Earth Science Women's Network. 2014 has been an exciting year for ESWN. Major milestones include record-high membership levels (over 2,000 active members); our first-ever fundraising campaign (thank you, supporters!); a new "Members Spotlights" feature on our website to promote major accomplishments; and professional development workshops in Germany and upcoming at the Fall AGU Meeting. Lots to report!

Non-Profit Formation

ESWN has been serving women in oceanography, atmospheric science, geology, biogeosciences and other branches of the Earth sciences for over a decade, operating as an informal network of scientists, with activities coordinated by a volunteer Leadership Board. Core activities include online discussions, peer mentoring, and networking events organized by members worldwide. Over the years, ESWN has received support from a wide range of organizations and universities, including the National Science Foundation (NSF), the National Center for Atmospheric Research (NCAR), and the National Oceanic and Atmospheric Administration (NOAA). The group has benefited from a wide range of in-kind support, including event co-hosting and web servers from the American Geophysical Union (AGU), and part-time staff support funded by the University of Wisconsin–Madison 4W Initiative for Women and Wellbeing. Without a standing budget, however, ESWN was not able to reserve event spaces, pay for website maintenance, or even cover the cost of a conference call, not to mention develop new exciting initiatives to serve you.

The most recent grant awarded to ESWN (NSF ADVANCE PAID) concluded in 2013. Our evaluators, Sandra Laursen and Tim Archie, worked alongside the ESWN Leadership Board during this award period. Their excellent report and executive summary are available at www.colorado.edu/ceer/publications/index.html.

After the conclusion of the NSF award, the Leadership Board decided that becoming a non-profit organization was the best course of action for sustaining this growing network. Reenergized by the New Year, we launched a public Crowdfunder crowdsourcing campaign in February to support the costs associated with incorporation. ESWN members, colleagues, family, and friends joined together in the fundraising efforts, and we couldn't be happier with the outpour of support! We closed the month-long campaign having raised nearly \$14,000 and 279 donations.

These funds were used to successfully incorporate into a (501c3) non-profit organization this fall! Please refer to our [Strategic Plan](#) for more details on the course ahead.

ESWN is now filed as a formal non-profit organization. The Leadership Board hopes to engage donors to invest in the already-successful programs of ESWN, and launch new initiatives to better serve the needs of our members. Future funded activities include broadening access to professional development workshops, extending the scope of ESWN activities to include college and high school students, and providing small grants to overcome barriers to career success. We will continue to operate with a voting [ESWN Leadership Board](#) that oversees the activities of four ESWN Officers: President, Tracey Holloway; Vice-President, Meredith Hastings; Secretary, Manda Adams; and Treasurer, Erika Marin-Spiotta. Additional Board Members include Rebecca Barnes, Emily Fischer, Carmen Rodriguez, and Christine Wiedinmyer. This year we welcomed the support from the UW-Madison 4-W Initiative for part-time staff member Colleen Schmit. Colleen is an undergraduate at the University of Wisconsin and has been working with the ESWN Board since June. (Welcome, Colleen!) Allison Steiner and Mirjam Glessmer stepped off the Leadership Board this year. (Thank you both!) Finally, we want to thank Ilissa Seroka (Ocko) for designing beautiful web "badges" for our supporters to add to their webpages (go to www.eswnonline.org/give to find out more),

Rachel Licker for laying out this beautiful newsletter, and all the members who volunteered this year – Thank you!!



The transition to non-profit has garnered higher awareness of ESWN and of the experience of women in the geosciences in general. For instance, Tracey Holloway was profiled in *Nature*, where she discussed her career and work with ESWN. Meredith Hastings was recently interviewed on the Rhode Island *YW She Shines Radio*. ESWN's non-profit transition was also featured in a press release from [Brown University](#) and the [University of Wisconsin–Madison](#). This is great publicity for ESWN, and exciting to see the wider interest in our activities.

ESWN Workshops and Networking Events

Our most recent ESWN professional development workshop, *Networking and Communication Skills*, was held in September 2014 in Germany at the University of Kiel, with nearly 60 attendees from across Europe. This was the second major workshop organized by ESWN members in Europe, following the success of last year's

November 2013 *Career Planning Workshop for Early-Career Female Scientists* at the University of Bergen in Norway. Every year at the Fall Meeting of the AGU in San Francisco, ESWN offers "mini-workshops," which has become a tradition. In 2013, we offered three workshops: *Navigating the NSF System*, *Getting on the Tenure Track and Succeeding*, and *Getting out in the Field as a Skill* (check out our workshop summaries later in the newsletter).

Besides workshops, in-person events for networking and socializing are a big part of the "glue" that holds ESWN together. We were/are co-host for the 2013 - and the upcoming 2014 - AGU Networking Reception for Early Career Female Scientists and Students (actually open to all women... so please come by!), and in 2014 we'll also have a meet-up at the AGU Ice Breaker Reception. Our members have taken the lead on tons of local meet-ups - networking events, happy hours, running clubs, and gatherings at scientific conferences. It's easy to organize an ESWN event - just post to the General ESWN Discussion, start an online group, and post to the [Upcoming Community Events](#) page online.

Upcoming in 2015

Expanding ESWN to serve undergraduate women in STEM, with a recent \$1.7 million grant from the National Science Foundation. Led by ESWN Board Members Emily Fischer, Manda Adams, and Becca Barnes, the team includes experts in psychology, statistics, education, and STEM engagement. Starting in 2015, the team will recruit 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 members of ESWN. Undergraduate participants will have access to a web platform that will enable national-scale peer mentoring, building on the success of ESWN's online community.

New ESWN Service Award recognizes ESWN members who demonstrate outstanding commitment to the mission of ESWN (board members are not eligible). The 2014 winner is Rose Kontak, former ESWN staff-member (at Brown University). Thank you Rose for your years of dedication to ESWN! We will be sharing more information on the nomination process coming soon, and if you have ideas for more awards that ESWN should give out, please join our group "[ESWN into the Future!](#)" and share your ideas.

ESWN at the 2014 Fall Meeting of the American Geophysical Union in San Francisco (December 15-19, 2014). We will be hosting a table at the AGU Ice Breaker Reception on Monday evening, and co-hosting the *AGU Networking Reception for Early-Career Female Scientists and Students* on Tuesday evening. AGU has enlisted tickets for this event; however please don't be dismayed if you can't get a ticket in time. There should be plenty of room for all who wish to attend. Of course, not-so-early-career women are also welcome!

Wednesday, we will run three open workshops: *Navigating the NSF System*; *Getting on the Tenure Track and Succeeding*; and *Opportunities Beyond Academia*. Tracey will be serving on an AGU Honors and Awards panel Monday on the topic of building a more diverse nomination pool for professional awards, and Meredith and Tracey will be participating in the AGU Heads and Chairs Workshop to discuss supporting early-career scientists and promoting diversity within organizations. More details of these events are given later in the newsletter. Please stop by to chat at the receptions or participate in the workshops, and encourage a new friend to come along!

We welcome your engagement and ideas as we move forward. Whether to volunteer a talent, host an event, or share your ideas and advice, ESWN depends on you and is here to meet your needs. From all of us on the Leadership Board, we wish you a productive and happy start to 2015!

The ESWN Leadership Board



ESWN @AGU 2014 in Detail

Sunday, December 14

Heads and Chairs Workshop

7:30 AM – 6:00 PM

InterContinental San Francisco - InterContinental Ballroom B

The Earth Science Women's Network Leadership Board Members, Meredith Hastings and Tracey Holloway, will be presenting at this one-day workshop to start off AGU right! This workshop will provide an opportunity for heads and chairs of Earth and space science departments to discuss issues and strategies for building strong departments, meet other heads and chairs, and learn more about current issues.



@AGU 2014 continued

Monday, December 15

Improving your Success for AGU Honors: Tips, Tools, and Tactics

10:00 AM – 11:30 AM
SF InterContinental - Grand Ballroom

AGU's Honors and Recognition Committee, in partnership with ESWN and AGU volunteers, will host this inaugural workshop. The workshop is focused on discussing best practices for nominating or being nominated for AGU honors and will offer tools, tips, and tactics. The three topics of the workshop are: (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 workshop is open to all AGU members and stakeholders. It is part of a larger AGU effort to support all nominators and nominees and strengthen the long-term diversity of nominations and awardees of AGU's honors and recognition program.



AGU Ice Breaker

6:00 PM - 8:00 PM
Moscone South - Hall C: Exhibit Hall

Come meet and greet ESWN members during the AGU Ice Breaker event on Monday evening. It will be an opportunity to meet colleagues and new friends during the first day of the sessions!

Tuesday, December 16

Networking Reception for Early-Career Female Scientists and Students

6:00 PM – 7:00 PM
Westin Market Street - Metropolitan Ballroom 1 & 2

Network with your peers at this event made especially for early career female scientists and students. In partnership with ESWN, the Association for Women Geoscientists (AWG) and the AGU, this reception will be hosted by Executive Director/CEO of AGU Chris McEntee, AGU President Carol Finn, and AGU President-elect Margaret Leinen. Tickets are free; however you will be able to attend without a ticket. Light refreshments will be served.

Wednesday, December 17

ESWN presents three workshops

San Francisco Marriott Marquis - Golden Gate C2

Navigating the NSF System

9:00 AM - 12:00 PM

How do you make your proposal as NSF-savvy as possible? How do you best describe your broader impacts? What is cutting edge in data management? How do you identify the best program for application? How do you access available education and outreach funds? There are always new initiatives starting at NSF, beyond core programs. How do you identify and apply for these opportunities? How are initiatives different than core programs? How can you design effective integrated research? Answer these questions and meet in small groups with Program Officers; get to know what they are looking for; and learn how to ask the right questions, give the right answers, and get funded. This workshop is open to all AGU Fall Meeting attendees and will be particularly helpful to early- to mid-career participants, especially graduate students, post-docs, researchers, and tenure-track faculty thinking about applying for NSF funding for the first time. Co-sponsored by ESWN and AGU Education.

Getting on the Tenure Track and Succeeding

1:00 PM - 3:00 PM

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 aim to de-mystify the process, and share secrets to success. This workshop is geared towards assistant professors on the tenure-track now, as well as graduate students and post-docs considering an academic career; all are invited. This workshop is possible through a partnership of ESWN and AGU Education.

Opportunities beyond Academia

3:00 PM - 5:00 PM

Thinking about a career outside of academia? It can often be difficult to get help finding a job in a non-profit or government agency, within industry, or as a consultant – 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 will discuss practical skills for making the transition to successful post-graduate careers (yes, there is life after the MS/PhD!). A panel of scientists with experience outside of academia will share their “lessons learned” and answer your questions about how to find and apply for jobs in policy, federal research labs, state agencies, NGOs, industry, and private enterprise. Geared towards graduate students and post-docs who are considering options outside of academia, as well as faculty who are interested; all are invited. This workshop is a partnership between ESWN and AGU Education.

Discussion Forums Highlights, 2014

In 2013, the Earth Science Women's Network (ESWN) launched a new, web-based platform (eswnonline.org) to replace our former email listserv, which had been generously hosted by the National Center for Atmospheric Research (NCAR) from 2002-2013. The new website allows for ESWN-wide-only conversations like the old listserv, and now allows for discussions among smaller groups, individuals, and easy archiving by discussion topic.

Currently, there are over 50 discussion groups on specific topics such as *Geographers @ ESWN*, *Navigating the tenure track*, and *Lone Rangers - when you are the only person in your discipline*, not to mention the number of regional groups meant to bring local members together. Any member can start a new online group, and there is no limit to the number that you can join! To share information or get advice from the broader ESWN community, the *General ESWN Discussion* forum is often the most active part of the site.

We've done a round-up of some of the various conversations members of ESWN have engaged in this last year. Starting with the *General ESWN Discussion*...

The most active discussion topic, with 28 posts, flagged the small percentage of women recipients of the 2014 American Geophysical Union (AGU) Awards (only 5 out of 29!). Through this discussion, we learned that the AGU Honors Program received a total of 153 nominations, although only 22 were from women nominators (of whom, most nominated men). ESWN members suggested that nominating more women will help lead to more gender equality in those receiving the awards, and that we ESWN-ers should nominate each other. Women can also ask colleagues to consider them for nominations. Keeping an updated CV on your website will make it easier for others to nominate you for awards where you can't know that you are being nominated.

An interesting discussion stemmed from a member who was reviewing a manuscript and was concerned whether to include comments on improving grammar in the review - important, but very time-consuming for the reviewer. Many members felt that correcting grammar mistakes and incorrect English is not the responsibility of the reviewer - if the language fails to clearly explain the science, then it is impossible to review the scientific merits of the paper. In that case, the paper should be revised before it is accepted for publication. Co-authors have a responsibility for ensuring that the English grammar is correct, and team leads should consider supporting editorial assistance as part of the scientific process.

Fashion discussions on ESWN are rare, but always enthusiastic - this year the big topic was what to wear to a job interview. The general consensus is that a matching suit is necessary for corporate interviews, but a coordinated blazer and pants or skirt work well for academic interviews. It was suggested that for two-day interviews (common in

academia) you should wear a suit on the day that you give your talk, and something that is just slightly less formal on the other day. If possible, it's a good idea to pack extra outfits when traveling for an interview as a back-up. Additionally, given that academic interviews are long and may involve a lot of walking, you should wear formal, comfortable shoes. In fact, comfort is a key point with all aspects of the job interview - multiple people emphasized that you should feel comfortable in what you wear (and choice of makeup), otherwise it will be hard to present your best self in meetings.

We had a thoughtful discussion, and lots of great advice, in response to one member's post on the "imposter syndrome" - a collection of feelings of inadequacy that persist despite successes and evidence of capabilities. The imposter syndrome is common in high-achieving and highly successful individuals, and can be especially noteworthy in women. Many members chimed in with messages of support and encouragement, along with tips and stories from personal experiences. Among the advice for combating imposter syndrome: call it what it is (a common problem; not a problem with you); talk to trusted friends, colleagues, and mentors; and consider a professional therapist. We all remember the criticisms more than the compliments, so keep a folder of the compliments and accolades you've received over the years and turn to these when you need a moral boost (one member called these her "happy emails"). When confronting a paper review or other feedback, keep in mind that reviews often have more negative comments than positive ones, and avoid projecting specific comments ("more statistical analysis is needed") into general internal criticisms ("you aren't good enough").

A number of active discussions dealt with work-life balance and the merits of "leaning in" (the idea laid out in Sheryl Sandberg's 2013 book). "Having it all" can mean so many different things to various people, and it is more valuable to focus on personal goals and priorities.

Other interesting discussion topics included: the practicality of iPads or tablets for professional use; strategies for starting to write a journal article; "gendered" toys, such as GoldieBlox; and nursing accommodations while traveling. ESWN members can find all of these fascinating discussions online!

In the group *Atmosphere and Ocean Dynamics*, the question of why there are so few women in editorial positions in the major journals stimulated an interesting discussion. What qualifications, career stage, and search criteria all came into question. The overall feeling was that recruiting editors is a somewhat ambiguous process. However, the gender imbalance could be improved with greater transparency and with networking of women scientists. In the *Leadership and Management* group, members shared resources for mentoring. Members discussed gaining management experience in *Mid-Career: What's Next?* Also in this group, a member wrote in for advice on how to proceed when the pursuit of her tenure-

Discussion Forums Highlights, 2014 (continued)

track job was in conflict with her personal path. Many ESWN members related to her situation and offered advice, underscoring the complexities scientists face as they advance in their careers.

In *ESWN Moms*, members discussed their experience of being a mother at different career stages and in different career sectors, like academia or government. While every situation varies, being aware of your options and the importance of community can help. Tips related to handling work and family issues simultaneously were discussed, such as managing breastfeeding while working in the field and childcare when attending conferences. Lots of advice was offered for considering when to announce one's pregnancy at work or to students. *ESWN Moms* also suggested strategies for family meal planning. This year a new group, *Moms on the Tenure Track*, was formed!

In *Teaching Earth Science*, members discussed the different courses they teach, and offered recommendations for text books. They also discussed innovative ways for better engaging students, like using back to school ice-breakers, flipping the classroom, and organizing office hours. In *Navigating the Tenure Track*, members shared tips for recruiting promising graduate students. Other unique discussions were held in *Transitions: Leaving Grad School*, *ESWN Postdocs*, *What to Wear*, and *Writing Accountability*. For in person connections, check out one of the local ESWN networking groups, like *ESWN in the Greater Boston Area*, or start a new one!

ESWN Member FAQs

Q: How do I post a question to ESWN? A: Log on to eswnonline.org; click "Forums" and then click the green rectangle that says "New Topic." Give your post a title and content, and any key word tags (optional). At the end, there is a drop-down menu that says "Post in Group Forum" - if you want to share your post with all of ESWN, select "General ESWN Discussion."

Q: Can I post an anonymous question? A: Yes and no. We do not have an option for you to post anonymously through the web. However, any ESWN Board Member would be happy to post a question on your behalf (well, actually any ESWN member can post anonymously - all you have to do is say "this is an anonymous post" or something like that).

Q: I love getting email from ESWN, but some conversations get to be too much. Can I mute specific topics? A: Yes! This is a cool new feature of our website. Just click the URL for the discussion topic you want to mute and scroll to the end. Just above where you could leave a comment, there is a gray bar that says "Mute this Topic." Done!

Q: How do I organize a get together in my city, or at a meeting? A: Just post your idea for a get-together on the ESWN General Discussion (see above for how to do this) - that way, you'll reach women across ESWN who may be interested. Once you know who is interested, just set a time, and pick a convenient restaurant or bar where you can all meet up! (Take pictures, too!! We'd love to include them in the next newsletter).

Q: I know ESWN is a non-profit now, but what's changed? A: Well, not much - we are still doing the same things we have been doing for over 10 years - helping you connect with each other, share resources, get advice, etc. But, these things were hard to do without a central bank account and mechanisms to raise money. Now that we have the nuts and bolts under control, we'd love your ideas on how ESWN can better serve you! Join the "ESWN Into the Future!" group to share ideas and be part of our visioning activities.

**ESWN Workshop Summaries****Career-planning in stormy weather**

Dr. Nadine Goris
Researcher
Geophysical Institute &
Bjerknes Centre for Climate
Research, University of Bergen



On November 14-15, 2013, the *Career-Planning Workshop for Early-Career Female Scientists* took place in Bergen, Norway. The workshop was organized by ESWN members: Elin Darelius (Geophysical Institute, University of Bergen), Mirjam Glessmer (Hamburg University of Technology; formally: University of Bergen and ESWN Board Member), Nadine Goris (Geophysical

Career-planning in stormy weather (continued)

Institute, University of Bergen), Ute Daewel (Nansen Environmental and Remote Sensing Center, Bergen) and Petra Langebroek (Uni Research, Bergen). It was scheduled to take place in a cabin on Mount Ulriken, but due to the forecasted storm an alternative plan had to be made. The workshop was moved to one of the meeting rooms of the Geophysical Institute. Thirteen female scientists were guided through networking and funding opportunities. We started with an unconventional round of introductions where the room was considered a world map (with the white board being the Arctic), within which we had to position ourselves according to the region our research focuses on. Afterwards, Anja Hegen (Administrative Coordinator Birkeland Center of Space Sciences, University of Bergen) informed us about funding possibilities and upcoming calls. Solfrid Hjøllø (Researcher, Institute for Marine Research) told us about her career journey and Emmanuel Babatunde (Senior Adviser, Department of Research Management, University of Bergen) shared tips and tricks for successful proposal-writing with us. After having lunch, we drove to Elin Darelius' cabin in Øygarden, a small island outside of Bergen. Here, Friederike Hoffmann (Senior Executive Officer, Geophysical Institute, University of Bergen) discussed the reviewing process for proposals and Mirjam Glessmer presented networking concepts and ideas.

On top of all the valuable and helpful information that the workshop provided, the stormy weather gave us all the opportunity to connect with each other in Elin's cosy cabin, and the whole group had a wonderful time together. Thanks to the workshop organizers and the speakers!



Networking and Communication Skills and Career Building

Dr. Amélie Kirchgaessner,
FRMetS
British Antarctic Survey



About 60 women from scientific institutions around Europe and further afield gathered in Kiel, Germany from September 17 - 19, 2014 for a career development workshop.

It all kicked off with a fantastic Icebreaker at the Maritime Museum, an appropriate setting for a workshop in this town where everything seems to revolve around oceanography, ship building, sailing, the navy and ferries. Professor Anja Pistor-Hatam, Vice-President of the University of Kiel, and Dr. Martin Visbeck, Chairman of the Research Unit Physical Oceanography at GEOMAR, welcomed the participants to Kiel. ESWN Representative Amélie Kirchgaessner welcomed the women on behalf of ESWN and gave an introduction to the network, its background, its aims and goals. Professor Katja Matthes, Chair of the Women's Executive Board (WEB) at GEOMAR introduced this body and explained its role and function and Dr Yiming Wang, from the Institute of Geosciences, University of Kiel, welcomed everybody on behalf of the organising committee. Sustained by lovely food and drink women immediately started talking, chatting, and networking well into the evening.

The first day's session was entitled "Leadership and Networking Skills," and was moderated by Christina Olex (The Point). Many will have met Chris at one of the previous ESWN workshops in the US. Topics on this day included "Your personality," "Your impact," "Your connections," and "Your strengths and opportunities," and guided participants to a better understanding of different personalities and preferences of communications. This awareness can be used in networking as well as in situations requiring leadership.

The second day, under the title "Career Building" was led by Dr. Silke Oehrlein-Karpi (K. T. E. Coaching). This day focussed on "career," and what different people, and most importantly we individually, understand by this term. More challenging than it sounds now are questions like: What do we want from our career, what are we willing to do/give up/sacrifice to achieve this goal – and what not, and what can we and do we need to do to achieve our goal step by step. Just as important, did we learn, is it, to think about and come up with a Plan B, and also, to define milestones at which we would change from Plan A to Plan B. To plan one's career in this way very much like any other project seems rather unusual.

Networking and Communication Skills and Career Building (continued)

From my own experience, and what I have heard on countless panels on career advice is, that many people's careers "happen," because they happen to be "at the right place at the right time," talk to "the right person," see an interesting role advertised and go for it. These seem at first two contrary pathways. What I have taken away from this day, apart from a much clearer understanding of what I define as "my career" and what I want my career to be like, is, that and how one can actively contribute to make our careers "happen."

Another very useful and successful ESWN workshop. Many, many thanks to the organizing committee - Yiming Wang, Katja Matthes, Gesche Braker (Future Ocean, Germany), and Christa Marandino (Helmholtz Centre for Ocean Research, Kiel, Germany), and to the sponsoring organisations - GEOMAR, The Future Ocean, the GEOMAR Women's Executive Board, Christian-Albrechts-University in Kiel, Kiel Institute for the World Economy, and Muthesius Kunsthochschule.



Above: Drs. Christa Marandino (GEOMAR) and Amélie Kirchgassner (British Antarctic Survey)



Photos from the event, credit to Tebke Bösch, University in Kiel.

Getting out in the Field as a Skill Workshop



Dr. Ellyn M. Enderlin
Post Doctoral Associate
Climate Change Institute
University of Maine

Dr. Meredith Hastings
Joukowsky Family
Assistant Professor
Department of Earth,
Environmental, and
Planetary Sciences,
Brown University



Dr. Aisling M. Dolan
School of Earth and
Environment
University of Leeds

This half-day workshop took place during the American Geophysical Union (AGU) Fall 2013 conference, in San Francisco, California. This workshop was made possible through a partnership of the Earth Science Women's Network (ESWN) and AGU Education. It was co-organized by Meredith Hastings, from the ESWN Leadership Board, and Ellyn Enderlin and Aisling Dolan, both from the Association of Polar Early Career Scientists (APECS). We extend our thanks to the partner organizations and panelists: this event would not have been successful without your participation and support!

Fieldwork is an essential component for many in the geosciences, and it provides opportunity for gaining skills in everything from temporal and spatial reasoning to organization, planning and preparation. There are many challenges associated with fieldwork, including physical, economical, managerial, and legal concerns.

This workshop provided a panel discussion on the challenges, benefits, and strategies to being successful at planning, leading, and completing fieldwork in a variety of settings. Panelists were Dr. Bob Hawley (Dartmouth College), Dr. Fiamma Straneo (Woods Hole

Getting out in the Field as a Skill Workshop (continued)

Oceanographic Institution), Dr. Julie Brigham-Grette (University of Massachusetts Amherst), Allen O'Bannon (CH2MHILL Polar Services). The panelists began the workshop by providing background information on how they became involved in field campaigns and key tips for successful field campaigns (listed below). The panelists then answered questions from the audience: the questions and answers are summarized below.

Key Tips from Panelists

Dr. Bob Hawley:

1. Experience will lead you to even more field opportunities so take the opportunities you can get without over-selling yourself/exaggerating your current experience level.
2. Even if you initially take a secondary role, you will likely end-up leading a field campaign at some point because you will know what to do through past observational experiences.
3. Prepare in advance for a variety of scenarios and know what you are bringing, what you are trying to accomplish, and assign duties.
4. Be persistent. Keep applying or volunteering for opportunities and when they are given to you, don't be afraid to take them!

Dr. Fiamma Straneo:

1. You'll make a lot of mistakes, and they may be costly, but you'll learn a lot from them and you'll get better at executing field research because of those mistakes.
2. Don't be afraid to try something new or different. You may not start as an expert but you'll develop the right skills and knowledge.
3. Have back-ups: redundancy in observations is key!
4. Talk to experts. Don't be afraid to ask for help.



Photo by C. Kassel

Dr. Julie Brigham-Grette:

1. Doors of opportunity will open and you have to decide whether or not you should take the available opportunities.
2. You learn that sometimes you have to take risks in remote places but always have plans B, C, D... so that you don't have to take costly risks and endanger yourself.

3. Sometimes you need mental or physical help. Don't be afraid to ask for it.
4. Get advice, listen carefully, and don't be afraid to admit when you're wrong.

Allen O'Bannon:

1. Some skills can be self-taught but sometimes that may not be enough. Formal training can be incredibly valuable. Field safety courses will teach you a variety of skills but even participating in outdoor club adventures on a college campus can provide you with additional knowledge and skills.
2. Experience/practice can teach you a lot so get out there.

Questions & Answers

Q: How do you find good field assistants and how do you build their confidence? A: If you can conduct interviews, present them with some worst-case scenarios in order to gauge their ability to handle difficult situations. Know what you need before trying to make any decisions on team members because you never want to be in the situation where you are the only person that can perform a specific task but you cannot complete it for some reason. Also, be sure that you pick people that are interested in the science, not just being outdoors because that will really help with motivation.

Q: How do you convince funding agencies to give you money for fieldwork when remote sensing techniques are much more efficient and cheaper? A: All remote sensing techniques need to be validated with field observations, so weave validation into the proposed project. Tiered mentoring, where you teach a graduate student then they teach an undergraduate student, can also serve as a broader impact in a proposal.

Q: How do you deal with gender inequality issues? A: It doesn't hurt to be asked to get the same opportunities as other teammates because sometimes bias is unconscious. If you still encounter problems or don't want to say anything while in the field, try your best to cope with the problems while in the field and present the issues after the field campaign. Be persistent and 'pleasantly' assertive and people will often realize your ideas are important and will eventually be more supportive. However, don't be afraid to admit your limits: you can get yourself into a dangerous situation if you are not physically capable but refuse to admit you need help.

The complete Q&A section can be found on the [ESWN Workshops page!](#)

Perspectives from Members, 2014



Coordinated by Dr. Mona Behl
Research Coordinator and Climate
Science Specialist
Texas Sea Grant College Program at
Texas A&M University

Dr. Mona Behl has been a member of the Earth Science Women Network (ESWN) since 2006. An oceanographer by training, Behl currently leads Texas Sea Grant's Research Program, and also works with sea grant extension team as a Climate Science Specialist. She approached four colleagues working in different sectors – private, academic, non-profit, government – to gather their insights on the following question:

What has been the most challenging/rewarding part of your career and why? How did you address this challenge?

Private Sector Perspective

Archana Deskus
Vice President and Chief
Information Officer
Baker Hughes Incorporated



Ms. Archana "Archie" Deskus is Vice President and Chief Information Officer of Baker Hughes Incorporated since January 2013. She oversees all aspects of information technology globally and partners with business leaders in executing transformational projects that enhance operational and business capabilities. Prior to joining Baker Hughes, she was Vice President and Chief Information Officer with Ingersoll-Rand Plc. Before joining Ingersoll Rand in 2011, she was Senior Vice President and Chief Information Officer at Timex Group for 4 years. Previously, she was with United Technologies for 19 years where she grew through a variety of leadership roles in multiple businesses including Pratt & Whitney Aircraft and Carrier Corporation. Her last position at United Technologies was as Vice President and Chief Information Officer for Carrier's HVAC business in North America. Ms. Deskus holds a Bachelor of Science in Business Administration and Management Information Systems degree from Boston University and an MBA from Rensselaer Polytechnic Institute.

Much of my career has been about transformation and driving change. Information Technology by its very nature

comes with change, and the last decade has seen exponential and unprecedented growth, and no indication of slowing down. With widespread use of the Internet and penetration of the mobility platform, technology cycles have dramatically accelerated. Internet connectivity is ubiquitous and a way of life for more than a third of the world's population, and aggressively growing; consumer adoption is faster than ever as technology has become cheaper and easier to use. The rapid technology change and adoption is also driving businesses to change. The consumer world is increasingly merging with the business world, changing expectations around cost, usage, capability and performance.

As a CIO in a rapidly evolving environment, I have to balance the interest to embrace the new, which is critical if we are to remain current, with the need for robust security, protection of our critical assets and data, as well as the transitioning of legacy systems and technology. Many companies have built a legacy, in some instances over the course of a century, which cannot be transitioned overnight.

I am excited by the impact technology has on our daily lives; at the same time, the speed at which it's introduced is one of the biggest challenges I continue to face in my career as a technology leader. It's not unusual that once an implementation is complete, we're already planning for the next iteration.

Each change creates more change, which in turn requires a mindset adjustment for the organization in order to effectively drive adoption and optimization.

So what has been the key to overcoming and addressing these challenges?

Stay in a mode of constant learning. Change is continuous, so it's critical to constantly learn and update proficiencies and expertise. Studies show that technical information doubles every two years, so what we know now can very quickly become obsolete if we aren't continuing to learn.

Stay relevant with the business. Look for the value proposition and focus on what will bring about business improvement and growth. There's a lot of "noise" in terms of new technology, innovation, and the "next big thing." Through learning, as well as maintaining a depth of knowledge and understanding of the business, it's possible to determine where change is truly needed to benefit the business, and where it offers the most value and competitive edge.

Finally, **people are the critical element to successful adoption.** Technology challenges can be overcome, but the organization must embrace the change, adjust their mindsets, and adapt to a new way of working. This change management goes well beyond strategic and tactical plans, and focuses on the human side, communication, building a relationship and a connection with people.

Perspectives from Members, 2014 (continued)*Academic Sector Perspective*

Dr. Katherine Hayhoe
Associate Professor
and Director
Climate Science
Center at Texas Tech
University

Dr. Katharine Hayhoe is an atmospheric scientist whose research focuses on developing and applying high-resolution climate projections to understand what climate change means for people and the natural environment. Katharine is an associate professor and director of the Climate Science Center at Texas Tech University. Her climate outreach is featured on the Emmy award-winning documentary series “Years of Living Dangerously” and “The Secret Life of Scientists and Engineers.” In 2014, she was awarded the American Geophysical Union’s Climate Communication Prize, and named as one of TIME’s 100 Most Influential People and Foreign Policy’s 100 Leading Global Thinkers.

For many of us in ESWN, our biggest challenge lies in balancing the many competing demands for our time. As academics and/or researchers, though, we also have the freedom to make many of the choices that determine how we spend our time. (Not all: if I could do away with paperwork, I would.) So in that sense, this is also the most rewarding part of our careers as well!

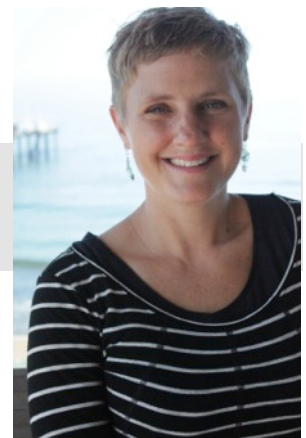
My problem has always been that there are always far too many interesting, worthwhile, and intellectually rewarding things to do. I appreciate that I have the opportunity to do fundamental research; to invest in mentoring students and young researchers; to share what I’ve learned with experts in other fields who can use my work to inform their own; to connect with and learn from colleagues with similar interests here on campus and around the world; and to talk to people about why it’s so important to understand science, and climate change in particular. How do you fit all that into one life, though? That’s the challenge.

I’m sure I’ll still be trying to figure out how to tackle all this forty years from now. For now, though, I’m learning that it helps to get help. Look for coaching or mentoring opportunities and carve out the time to make them

happen. Use what you learn to change the way you do things. Invest in your team; the more capable they are, the easier your job will be. Make a list of everything you might possibly delegate, and do it. Learn how to say NO: first, to opportunities that are not as interesting to you as others, or that someone else could do just as effectively; next, as you get busier, to commitments that are interesting, and where you could make a unique contribution, but do not necessarily meet your long-term goals; and ultimately, the toughest one, to things that are interesting, that do need your unique voice or ability, and do contribute to your long-term goals but are less effective uses of your time. And finally, schedule carefully but don’t over-schedule. You never know what might come along at the last minute!

Non-Profit Sector Perspective

Dr. Kathryn Mengerink
Director, Ocean Program
Environmental Law Institute



Dr. Kathryn Mengerink, Director of the Ocean Program at the Environmental Law Institute (ELI), researches law and policy to support effective ocean management. Her current work includes supporting coastal and marine spatial planning (CMSP) implementation; developing innovative approaches to addressing cumulative impacts to West Coast marine ecosystems; supporting Alaska Natives communities’ engagement in Arctic CMSP; and examining the legal ramifications of the federal CMSP framework. Dr. Mengerink is a lecturer at Scripps Institution of Oceanography. She also serves on the editorial board for the Sea Grant Law and Policy Journal. Before joining ELI, she served as a research associate at the Law of the Sea Institute. She holds a Ph.D. in Marine Biology from Scripps (UCSD) and a J.D. with a Certificate of Specialization in Environmental Law from UC Berkeley.

I suppose my quest for new and exciting adventures and my inability or unwillingness to say “no” has led to both the greatest rewards and the greatest challenges of my career. I began my career focused on becoming a marine scientist and after six years of graduate school and a Ph.D. in tow, I sought a new adventure. I headed to law school.

Upon completing my J.D., I joined the Environmental Law Institute (ELI) in Washington, DC and had the great opportunity to launch the Ocean Program, which I still

Perspectives from Members, 2014 (continued)

direct today. While satisfying my legal brain, when the chance arose to rejoin my alma mater, Scripps Institution of Oceanography (SIO), this time as a law and policy lecturer, I happily said yes. Surely I could move offsite to San Diego, teach a class once and year, and maintain my position as an attorney and program director. Opportunities continued to unfold, and instead of having one or two projects, my work with the Ocean Program today includes projects that range from the Arctic to the Caribbean, from fisheries management to oil and gas development, from one-person short-term projects to multi-person multi-year efforts. My role at SIO has expanded as well—I'm a lecturer, an academic coordinator, and an advisor to the SIO Center for Marine Biodiversity and Conservation.

Saying yes to all of these great adventures has been hugely rewarding. I have two incredible jobs and have had projects that have taken me around the world, meeting fascinating people from all walks of life. But saying yes is not without a cost. I often find myself pulled in multiple directions and still (though rarely) pull an all-nighter to get the job done.

To stay on top of my responsibilities, I spend a lot of time making "to do" lists and probably spend more time adding to rather than crossing things off of them. Increasingly, I rely on project management tools and electronic calendars to tell me where to go and what to do. And I could not exist without a smart phone. Most of all, however, I rely on the support of and collaboration with my fabulous colleagues and project partners. I am still learning the art of delegation and honing my skills at project management. I'm also trying, though mostly unsuccessfully, to occasionally say "no."



*Government
Sector Perspective*

Dr. Barbara Ransom
Program Director,
Directorate of
Geosciences
National Science
Foundation

Dr. Barbara Ransom is presently a Program Director in the Directorate of Geosciences at the National Science Foundation in the Washington DC area. She is completing her 10th year as a public servant, evaluating proposals and awarding US academic faculty to do ground breaking science. Prior to this she worked as a program officer at the American Chemical Society Petroleum Research Fund overseeing their merit review for all of the

geosciences and programs in nanotechnology, condensed matter physics, and thin-film catalysis. This was after spending over 10 years as a research scientist at the Scripps Institution of Oceanography and as an administrator for the California Space Institute at the University of California at San Diego where she participated in a number of oceanographic cruises and worked on fine-grained sediment, geochemistry, and carbon cycling on continental margins. She completed her PhD with Harold C Helgeson at the University of California, Berkeley, and spent significant time working in European laboratories (UK, France, and Switzerland) during her PhD and postdoctoral training. Dr. Ransom has also worked in South Africa in the Barberton Mountain Land on some of the oldest and best preserved rocks in the world; and she did a summer internship at the Lunar and Planetary Science Institute at the Johnson Space Center. She received her MSc from Louisiana State University and Bachelor's degree at Indiana University in Bloomington Indiana where she was a dedicated spelunker.

All views expressed are those solely of Dr. Barbara Ransom and do not necessarily represent those of the National Science Foundation or the US Federal Government.

At every stage of your career, you are going to have challenges. Sometimes they will feel completely overwhelming. You have to remain positive, however. You have to be creative. You have to not be afraid to work hard. And above all, you have to make sure you are selecting things that move you forward.

As a student, the most challenging part was to keep from being overwhelmed and overshadowed by my PhD advisor, a person with a HUGE personality and VERY strong opinions. He had many famous friends around the world, so my access and opportunities to interact with the real movers and shakers in my field was phenomenal. The downside was the suspicion that no one thought my ideas were my own. There was also suspicion over the nature of our relationship. In some ways, I was marginalized because his other students and postdocs were men and they did not have to deal with these same issues. I think people's perceptions about the "real" relationship between male advisors and female students have improved; but those issues can still haunt women very early in their careers. It is something to be aware of. Keep those lines drawn and obvious to everyone. I addressed this, by being very independent. At meetings and on travel, I would travel solo and interact with important people in my field and those who knew my advisor, independently. I established my own ideas and showed my natural curiosity and ability to problem-solve showing them I was a valuable colleague and not an extension of my advisor.

As a postdoc, the most challenging part was to get a "real" job. To be frank, I never made it, at least in terms of getting a faculty position at a major university (my original goal). I was the most interviewed woman in the US back in the early 90's. Always shortlisted, but never hired

Perspectives from Members, 2014 (continued)

(Always the bridesmaid; never the bride). Now, I do have a “unique”, energetic, outspoken personality; and I am sure that was part of the problem. At that time, most earth science faculties had few if any women on them. I don't think I was considered by male senior faculty as someone they felt comfortable working with and who had the appropriate “gravitas”. I also took the view that I was interviewing THEM to see if I wanted to work there, not the other way around. So the lesson I learned is that, when interviewing for a job, show that you would be a smart and interesting colleague-in-arms who would benefit their research and department as much (or even more so) than they would benefit yours. This is because, if you are offered the job, you can always say “no.” If you don't get an offer, well it's all moot. So, how did I address the challenge? Well, I was not introspective enough in those days to recognize my problem and how I was personally contributing to it. What I did was find a great position as a postdoc and then worked my way into a project scientist slot at the UC San Diego Scripps Institution of Oceanography. The key was identifying the right “champion” to work with; one who would allow you to do what you could prove you could do. I was lucky to have such a mentor in Miriam Kastner, one of the first women faculty of marine geology in the US. She still serves as an inspiration to me on what you can do if you have the passion, stamina, and political savviness to fight the good fights and do really outstanding science in many fields.

The last stage of my professional life was to get a “hard money” job. At Scripps, I was a “soft money” researcher, meaning I had to get my salary and research money from external funders. Although I truly loved my job, after about a decade, I realized that I probably would not want to work a frenetic 60 to 70 hour week when I was pushing 60. So I gave myself 2 years to find a “hard money” position. Academia seemed out and I could not afford to take a salary hit since my husband was a musician and I had a toddler. So I applied for all kinds of positions. These included working for the state, private consultants, and university administration. I finally landed a job as a program officer at the American Chemical Society Petroleum Research Fund. Turns out that the tons of scientific and non-scientific projects I involved myself in while I was on “soft money” (like leading proposal writing teams for university infrastructure; building public outreach programs involving Scripps, local schools, and public TV; pitching research coalitions for coastal research to the Navy) gave me the breadth and fearlessness I needed to take on any task and quickly learn any topic. I found that nothing you do is EVER wasted. No matter what I did during those Scripps years, even if it seemed really far away from my goal of a research job, became useful to me later on. I parlayed the program officer job at the American Chemical Society into a position as a program director at the National Science

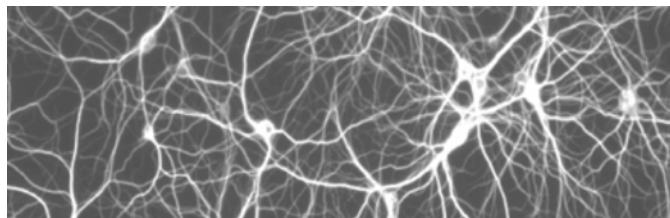
Foundation in Marine Geology and Geophysics. However, here I also run (or have run) programs in nanotechnology, social science, graduate education, geology, computer science, biogeochemistry, carbon cycling, you name it.

After 10 years program work, I am now looking to the future and wonder what path to take. Part of me wants to go into the senior executive service of the federal government, but my agency is a very flat organization with only a few executive positions. So, I joined the American Federation of Government Employees and became a union steward, hoping to get management-like experience and opportunities to show my leadership skills and ability to initiate change. It also lets me see how my agency works behind the scenes. As a result, I am one of our most effective stewards and the expert in EEO (Equal Employment Opportunity) and disability issues because I handle almost all of our union's personnel issues. Just this last year, I received the Agency Director's Award for my efforts. However, I am still not being recognized as “management material” by the powers that be, possibly once again due to my “unique” personality. So I may have to apply for and get an executive position in another agency. Right now I am meditating on how I might do that.

Just remember, everyone can be a worker bee. The smart ones work toward a specific goal and don't accept jobs just to keep busy. If an assignment or opportunity is not moving you closer to your goal, do what a man does. Because there are so few women in science, women tend to get many offers to serve on committees and be part of strategy meetings, etc. Don't do it!!!! I don't care if your department or university has to have a token woman on every committee. It is absurd and women end up doing WAY more service work than men. I have noticed both in academia and in the federal government that women seem to say “yes” to everything. Men almost NEVER volunteer. They keep their heads down and do the one thing they were hired to do. It seems to me that, at least in my agency, those are the people that get promoted.

So be careful of what you take on that is not moving you toward your goal, be that getting a job, getting tenure, becoming an administrator, moving to management, whatever. Move forward and never look back; and help others move forward in their careers.

...



The Global Mercury Trade: A Teachable Moment in Science and Policy



Dr. Noelle Selin
Esther and Harold E.
Edgerton Career
Development
Assistant Professor of
Engineering Systems and
Atmospheric Chemistry
Massachusetts Institute of
Technology

On October 10, 2013 in Kumamoto, Japan, I watched as countries from all over the world adopted a global treaty to control the generation, use, emissions and releases of mercury, a toxic substance that is a major focus of my research. The Minamata Convention, named for a city in Japan where industrial pollution led to the discovery of methylmercury poisoning, is the first new global environmental treaty in over a decade. Informing policy on toxic air pollutants is a major goal of my research, but it's rare to observe decision-making in action. That's why I see the mercury treaty as a "teachable moment" to encourage scientists to engage with the policy impact of their work.

While my PhD is in atmospheric chemistry, my academic background is multidisciplinary. My undergraduate major was environmental science and public policy, and before graduate school, I worked with the U.S. Environmental Protection Agency on toxic chemicals issues, and with the European Environment Agency on using science to inform policy. I've attended numerous global environmental negotiating sessions, as a student, researcher, and former report writer for the Earth Negotiations Bulletin (<http://www.iisd.ca/>). As a faculty member, I attempt to communicate my experiences linking science and policy to teach the next generation of science-policy leaders. The mercury negotiations were the perfect occasion to launch an integrated teaching and research effort. Fortunately, NSF agreed, and I was awarded funding through its CAREER program to research atmospheric toxics, and to encourage interdisciplinary education linking environmental science and policy-making.

As a first step, we developed "The Mercury Game," an interactive teaching simulation focusing on how science is used in global environmental politics. In the game, students take on roles of countries and non-governmental organizations. Each student gets a set of general

instructions and individual confidential instructions. In addition, they are asked to read a scientific assessment of mercury – a shortened version of the real global mercury assessment. Through the game, students explore the consequences of representing scientific uncertainty in various ways in a policy context. The game focuses on the credibility of various sources of technical information, strategies for representing risk and uncertainty, and the balance between scientific and political considerations. The Mercury Game is a key activity in an MIT course I developed on global environmental science and negotiations, and it has been played by over 300 people at eight different universities, including numerous ESWN members. It is freely available on our web site (<http://mit.edu/mercurygame>). In 2014, we published an evaluation of the educational outcomes for students who played the game, in *Journal of Environmental Studies and Sciences* (Stokes and Selin, 2014; <http://link.springer.com/article/10.1007/s13412-014-0183-y/fulltext.html>). We found that science students who played the game learned about both the science and policy of mercury, and about how politics and economics affect environmental problems.

In January 2013, I took a group of 10 MIT graduate students to Geneva to attend the final negotiating session for the Minamata Convention. This was a capstone experience and policy engagement exercise for the first cohort of students who took my course in global environmental science and negotiations. The students presented a poster and other written materials on the latest mercury science to delegates. During the negotiations, teams of students became experts on particular negotiating issues and tracked their progress (often into the wee hours of the morning). Students blogged about ongoing mercury science and policy discussions (<http://mit.edu/mercurypolicy>), and communicated with Twitter (#MITMercury).



MIT students and Noelle Selin (bottom right) in front of our poster in the exhibition hall at the final negotiating session for the Minamata Convention, Geneva, Switzerland, January 2013

The Global Mercury Trade: A Teachable Moment in Science and Policy (continued)

The experience of attending a global environmental negotiation was, in the words of one of my students, “the most unique academic experience of my time at MIT so far”. However, because of the resources and logistics involved, it’s impossible to do this on a larger scale. In the fall semester, in my global environmental science and negotiations course, my students now go on a “virtual field trip” to the climate negotiations – following the webcasts of COP negotiations from a classroom in Cambridge. The MIT experience of in-person and virtual field trips to negotiations will form the basis of a teaching package to help faculty incorporate science-policy negotiating activities into environmental science courses.

Like any compromise, the global mercury treaty is far from perfect. However, it sends a strong signal that mercury is a global problem, and that countries should take domestic measures to address it. The next step is ratification – the treaty will become legally binding (enter into force) once fifty countries have completed the required procedure to become a party. The road to fifty parties has started already – the United States was the first party, and several more countries have since joined. Then, the real work of implementation begins – and science (and scientists!) will continue to be important to measure the effectiveness of the treaty and inform further decisions.

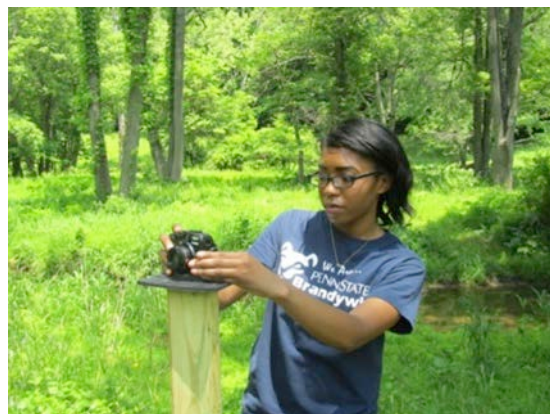
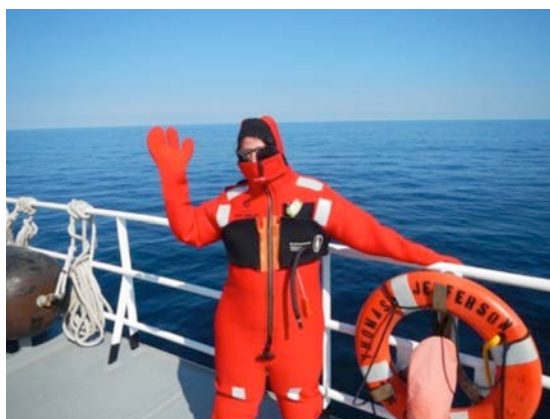


Dr. Selin in flight



2014 ESWN Members’ Updates

Laura Guertin participated in a hydrographic survey on the *NOAA Ship Thomas Jefferson* as part of the NOAA Teacher at Sea program. While at sea, she started this blog (<http://teacheratsea.noaa.gov/2014/guertin.html>) on the sailing experience, and even taught an *Introduction to Oceanography* course online! This is a photo of her during an emergency abandon ship drill. Laura’s undergraduate researcher, **Kimmie Brown**, is using photos taken around the campus of Penn State Brandywine to establish an environmental baseline from which to monitor local environmental changes (natural and man-made). This photo will be featured on AGU’s 2015 calendar!



Janel Hanrahan had a busy year. She had a baby, bought a house, and published three papers! She appreciated the moral support and suggestions that other ESWN members have given her about traveling as a nursing mother.

2014 ESWN Members' Updates (continued)

Amy Keese was invited to write a guest blog for the AGU Blogosphere - The Bridge: Connecting Science and Policy. Check out this page to hear about her experience participating in the Geosciences Congressional Visits Day <http://thebridge.agu.org/2014/10/22/congress-scientist-dc/>

Caroline Beghein had a paper published in *Science* and had her first graduate student, Kaiqing Yuan (shown below), defend his Ph.D. thesis. She was also acknowledged as a "notable professor" in an article that recognized the compelling work of professors at some of the top research universities in the U.S. (<http://onlinephdprogram.org/notable-research-professors/>)



Sora Kim moved to Chicago from Laramie, WY and had a baby. She received lots of great advice and strategies from colleagues (male and female) as well as through various ESWN posts through the years. She has to juggle her time more effectively and efficiently than before, but doesn't think a baby equals a loss of productivity. With the support of her partner and academic community, she attended a week-long seminar, served on an NSF panel, and published 4 papers this year.

Thea Whitman just finished her Ph.D. at Cornell and is currently doing a postdoc with Mary Firestone at UC Berkeley, studying root exudate impacts on soil carbon and microbes. She will be starting as a soil ecologist at UW-Madison in January 2016. She is looking forward to meeting many other ESWN members at AGU this December!

Juliet Kinney just started a job with ERT, as a NOAA contractor at the Joint Hydrographic Center at the Center for Coastal and Oceanographic Mapping at UNH. Her position is a Hydrographic Analyst working on post Hurricane Sandy mapping data sets.

After her summer geoscience policy internship in DC last year, **Brittany Huhmann** started as a PhD student at MIT last fall. She is studying arsenic in groundwater in Southeast Asia, and in March traveled to Bangladesh for fieldwork for the first time. Below is a photo of her field crew, which Brittany also shared earlier this year via AGU's Postcards from the Field (<http://americangeophysicalunion.tumblr.com/post/92054338008/greetings-from-bangladesh-its-my-first-field>).



Kari Pohl, shown below, successfully defended her Ph.D. in oceanography from the Graduate School of Oceanography at the University of Rhode Island. She just began a postdoc position at the University of Maryland, UMCES Horn Point Lab.



2014 ESWN Members' Updates (continued)

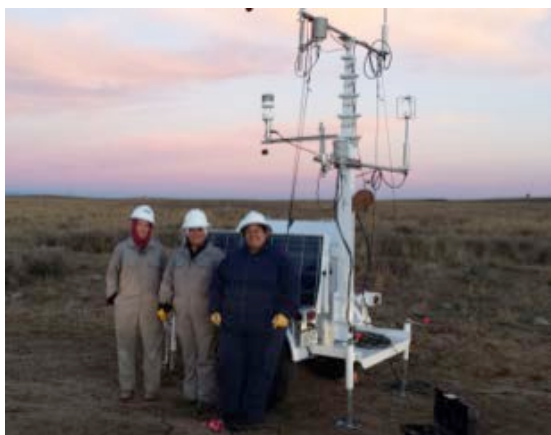
Ellen Martin, professor at the University of Florida, along with her graduate students **Cecilia Scribner** and **Kelly Deuerling** (below) worked on a project to study the geochemistry of weathering in proglacial and deglaciated environments in Greenland, which is a collaborative NSF project with Jon Martin. This photo was taken just outside of Kangerlussuaq, Greenland in the summer of 2012.



Tami Bond (below) was awarded the prestigious *MacArthur Fellowship* this year for her work on black carbon emissions and anthropogenic climate change. MacArthur fellows are “talented individuals who have shown extraordinary originality and dedication in their creative pursuits, and a marked capacity for self-direction” (MacArthur Foundation).



ESWN members **Kira Shonkwiler**, PhD, and **Andrea Clements**, PhD (shown below, left to right), along with other researchers from Colorado State University’s Department of Atmospheric Science have been using innovative methods to trace, collect, and analyze emissions from oil and natural gas production operations in Colorado. They are involved in two studies (West Slope and Front Range) which are supported by a range of stakeholders including Garfield County, the State of Colorado, and industry partners.



Four female scientists were recently honored by the major awards from American Geophysical Union. Congratulations!

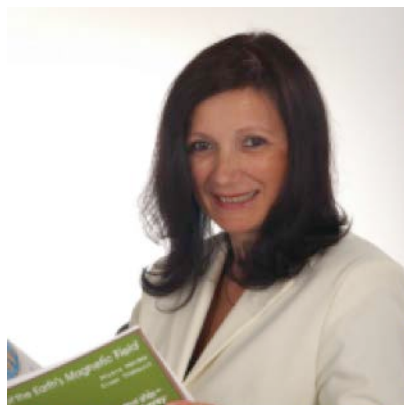


Jessica Tierney is a 2014 *James B. Macelwane Medal Winner*. This medal is conferred to outstanding early career scientists in recognition of significant contributions to the geophysical sciences.



Heather Macdonald is the 2014 *Excellence in Geophysical Education Award Winner*. This award is given to one honoree annually in recognition of “sustained commitment to excellence in geophysical education.”

2014 ESWN Members' Updates (continued)



Mioara Mandea is the 2014 *International Award Winner*. This award recognizes “outstanding contribution to furthering the Earth and space sciences and using science for the benefit of society in developing nations.”



And **Katharine Hayhoe** is the 2014 *Climate Communication Prize Winner*. This prize is given annually to one honoree in recognition of contributions to communicating climate science,

highlighting “the importance of promoting scientific literacy, clarity of message, and efforts to foster respect and understanding of science-based values.”

ESWN Board Member **Erika Marin-Spiotta** was promoted to Associate Professor with tenure in the Department of Geography at the University of Wisconsin-Madison. More on Erika's work is on her lab's website <http://marinspiotta.wordpress.com>

Congratulations to ESWN Board Member **Meredith Hastings** who will receive a 2014 Ascent Award from the American Geophysical Union Atmospheric Sciences section. This award recognizes exceptional mid-career scientists in the fields of the atmospheric and climate sciences, and will be presented at the Atmospheric Sciences Banquet during the AGU Fall meeting.

ESWN is expanding to serve undergraduate women in STEM, with a recent \$1.7 Million grant from the National Science Foundation led by ESWN Board Member **Emily Fischer**, along with ESWN Board Members **Manda Adams** and **Becca Barnes**, and ESWN member **Sandra Clinton**. The team includes experts in psychology, education, statistics, and STEM engagement. Starting in 2015, the team will recruit 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 members of ESWN. Undergraduate participants will have access to a web platform that will enable national-scale peer mentoring, building on the success of ESWN's online community.

ESWN Board Member **Carmen Rodriguez** rang in the New Year for 2014 sailing across the Atlantic Ocean aboard the NOAA *R/V Ronald Brown* on CLIVAR cruise, track A16. Her team sailed from Portugal to Brazil, ending in Chile. She analyzed inorganic carbon parameters to quantify the changing pH of the Atlantic Ocean over decadal timescales. Now she's getting ready to finish her final year at the University of Miami, Rosenstiel School of Marine and Atmospheric Science.

Pics: Friendly whales in the South Atlantic. Photo credits: Daniel Hauerland, Able Bodied Seaman at NOAA



ESWN Board Member **Christine Wiedinmyer** advanced work on cookstoves, air quality, and climate in Northern Ghana, building on her 2013 field work there (pictured below). Learn more about her project, titled Research Of Emissions, Air Quality, Climate, And Cooking Technologies In Northern Ghana (REACTING) at <http://www.reactting.com>



2014 ESWN Members' Updates (continued)

Rachel Licker (ESWN newsletter graphic design) recently began her third and final year as a postdoc with



Princeton University's Program in Science, Technology, and Environmental Policy in the Woodrow Wilson School of Public and International Affairs where she is researching climate change impacts on human migration and globally important

agricultural systems. Rachel served as a Contributing Author and Chapter Scientist with the recently released IPCC Working Group II Report (Impacts, Adaptation, and Vulnerability), Chapter 19, "Emergent risks and key vulnerabilities."

ESWN Board Member **Tracey Holloway** was promoted to Full Professor at the University of Wisconsin-Madison this year, and she also led efforts to transition our group to a non-profit (yay!). Tracey is also staying busy as Deputy Leader of the NASA Air Quality Applied Sciences Team (AQAAT), which links satellite data and other NASA science with air quality managers across the U.S.

Picture: Tracey Holloway at the Adler Planetarium in Chicago Illinois, July 2014, with high school visitors to the Adler's Career Exploration Day.

