



WILD WOMEN OF RECLAMATION NEWSLETTER

WWR Summer 2019 vol. 5

ASMR American Society of Mining and Reclamation

Greetings to all of our fellow Wild Women of Reclamation,

Please enjoy the lovely prairie crocus bloom (above) from La Biche, Quebec, sent to us recently from Jennifer Buss, University of Alberta graduate student and ASMR member

We had an incredible turn out at the 6th Annual Wild Women of Reclamation meeting in Big Sky, Montana, held in conjunction with the 36th Annual Meeting of the American Society of Mining & Reclamation on June 3-7, 2019. I am pretty sure that we had a record turnout for both participants in WWR and for women overall involved in the conference. Forty women participated in the photo shoot or just missed it with additional women showing up later for the two presentations. We thank everyone who participated, brought a friend or encouraged women to attend.

This event is arranged so as to allow for an additional networking opportunity for women in all stages of their careers. Being a smaller group, it is easier to make a new contact which then makes it easier to not feel so isolated at the conference if you are a new member or do not have a large network. By increasing our networking circle at the conference, it increases both the enjoyment of the conference and the technical exchange opportunities, promotes camaraderie through “team building” which can then improve self-esteem, as well as lowering our stress levels associated with being with a large group of people. Trust me, I know how hard it is to attend a conference or an event and either not know anybody or know just one or two people. Years ago, someone in ASMR took me under their wing and I am forever grateful. My secret to surviving large meetings has been to find someone who is also alone and strike up a conversation. This has worked almost every time. This technique has allowed me to make many friends at ASMR events. This technique is apparently not a secret; check out https://www.huffpost.com/entry/the-importance-of-network_b_9039062. A new participant to this year’s conference, Debby Slovikosky (Saint Francis University), emailed this affirming comment after the conference; “I think that the WWR meeting was great for networking and getting to know other people in the field. It was nice to be able to see familiar faces throughout the week and I really enjoyed all of the reclamation talks I attended. Overall, I really enjoyed my first experience at ASMR and I hope I’ll be able to return another year.” That is exactly what we are trying to achieve.

Enough about inspiration.... now onto a recap of the Wild Women of Reclamation event.

Our presentations highlighted that we are not in a silo. The experiences, challenges and sometimes lack or change of direction are felt by many of us during our careers and it is reassuring when we can hear of the obstacles, leaps of faith and or change of course that others have weathered. I am sure that not all of our challenges are unique to women, but, after hearing Dr. Natalie Kruse from Ohio University, there are some stories about bringing nursing babies to conferences and to work are challenges that most men have not had to deal with. The presentations this year continued on with the path taken by two young career women which involved a few pretty exciting moves and major leaps of faith to different regions and countries and lots of colorful events along the way.

Some, like Dr. Natalie Kruse, know at a very young age where their interests lie, but may not yet have a straightforward path to get to the final destination. Natalie had been interested in water quality issues at a very young age, and her photos of her at science fairs illustrated that she was very focused in a specific area of research by Grade 8. But even while getting her Bachelor's, could she have predicted that her next step would be to study abroad and get her PhD and then end up back in the US teaching at Ohio University, teaching at the same place she had started at? I am not sure how Natalie juggles raising a young family of two boys, living on a farm, volunteering to teach students and local residents about water quality while also on a tenure track position at the university. Obviously there is some serious time management, but she also credits an understanding and flexible university department and the willingness to engage her young children into her work schedule, if that is what it takes to get the job done. Talent and hard work was instrumental in having the right skill set and tools for when a position opened at Ohio University. And maybe some serendipity helped.

Mehgan Blair had a fascinating educational path before becoming a groundwater geologist for Barr Engineering. Mehgan talked about not passing up an opportunity for experiences as a field assistant, especially when it led to opportunities to travel to other countries on somebody else's dime. It was a leap of faith that maybe the experience would lead to another opportunity. She also talked about it being ok to change the path you are on when you discover an area that is much more interesting than the path you are currently on. Changing early in your degree or career is easier before a large financial or time commitment has been made. It is not that your first decision was a wrong decision and education is never wasted as it always help to inform your decisions, whether at work or at life. Changing directions just means that you are now aware of an area of considerably more interest and of which you may want to make lifelong contributions. Mehgan is also Chair of the ASMR meeting in 2020 so she will have her hands full over the next year. If you have any interest in helping Mehgan out, please contact her at MBlair@barr.com. Even if it means you are willing to work a shift at the registration desk, or help out somewhere during the conference, volunteers are always welcome.

I counted participants from twelve different Universities at the WWR event, and students came from ten of those institutions. During the networking event, we each connected to at least one woman who is new to this organization or to the field of reclamation. This interaction is geared so that we can offer encouragement and support both during the conference and throughout the year. Please reach out to your new colleague throughout the year, asking about their work and possibly even encouraging them to attend ASMR in 2020 and submit a poster, presentation or a video.

We would also like to announce that Rachel Hohn has graciously volunteered to assist Cindy and Michele in keeping the Wild Women of Reclamation group, their newsletters and their meeting running smoothly. Welcome aboard Rachel!

Michele Coleman (mcoleman@nbpower.com)

Cindy Adams (cindya@sgm-inc.com)

Rachel Hohn (rachelhohn@gmail.com)



Wild Women 2019 Big Sky, Montana

Front Row

Staci Shoemaker, Jennifer Franklin, M'Kenzie Dorman, Michele Coleman, Gwen Geidel,
Christine Brodsky, Zepei (Maggie) Tang

Second Row

Brea Burton, Kaitlyn Trepanier, Jennifer Buss, Randi Lupardus, Sage Tanck, Karlee Ketelboeter,
Debby Slovikosky, Natalie Kruse, Mehgan Blair, Ellie Leavitt, Heather De-Quincey

Third Row

Hannah Patton, Ashley Rovder, Gina Clingerman, Julie Lucas, Abby Rosenau, Kara Hass, Hannah Angel,
Maggie Eshleman

Back Row

Rachel Wagner, Kari Lagan, Adriane Limmex, Brianna Hall, Rebecca Steinberg, Cassie Phillips,
Sara Kloph, Marsha Patelke, Rachel Hohn, Abbey Wick, Danielle Duhé, Summer King

Known Missing

Brenda Schladweiler, Rachel Schmidt

Featured Article

Dr. Natalie Kruse Daniels is an Associate Professor at Ohio University and Director of the Environmental Studies Program in the Voinovich School of Leadership and Public Affairs.

An Athens Ohio native and now an assistant professor of environmental studies in her home town, Dr. Natalie Kruse-Daniels has worked passionately on stream reclamation research since her bedroom based bench scale lab days in Junior High. She started attending University classes at age 11 and earned a civil engineering degree by her late teens. After obtaining a doctorate in hydrogeochemical engineering in England, Kruse-Daniels returned to her alma mater, stepping into the role of her former mentor with the Environmental Studies program at the Voinovich School of Leadership and Public Affairs.

Natalie's research and community engagement in the Southeastern area of Ohio investigates the physical and chemical barriers to stream impacts from acid mine drainage. But, as we learned during Natalie's Wild Women of Reclamation breakfast presentation at ASMR in

2019, she really had been doing experiments at home since she was very young- and now she has a whole new captive audience with her children. I can see how her method of recording of data could make this a very good hand on experiment to try at home with almost any age of young people. Enjoy!

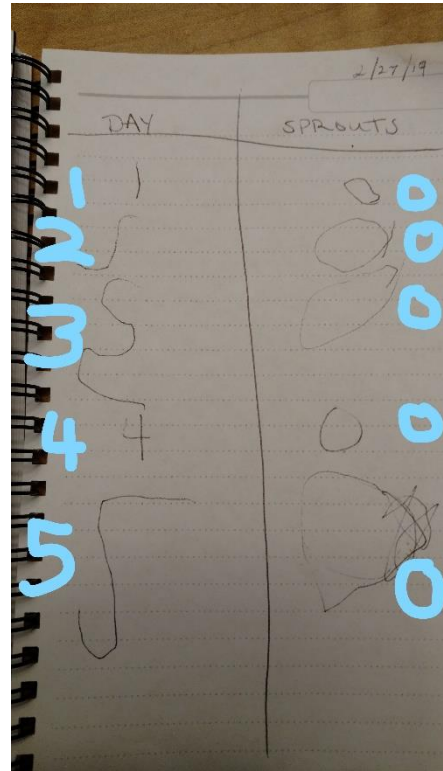


Experimenting at Home with Young Children Natalie Kruse Daniels

Children love the outdoors and working with their hands, so how do we facilitate that during dreary winter days? This “science experiment” is a wonderful way to get children thinking and involve in their world.

It was time to start spring seeds to plant out in our greenhouse, so I worked with my four-year-old to design an experiment and observe the seeds sprouting. We filled two trays with planting mix and added water. We then went through our seed collection to talk about what plants can tolerate the cold and which cannot. We settled on starting radishes, kale, chard, lettuce, and spinach. We added seeds, spread them out evenly over parts of the trays and labelled them to ensure we knew which seeds were where. After putting covers on the trays, we put them under grow lights from 7:00 am to 9:00 pm.

When I asked him how many days he thought it would take for sprouts to start growing, he said five. This was the beginning of making a hypothesis and testing it.



Each day, he checks on the trays to see if any sprouts have emerged. Not only has he remembered to check, he has been eager to do so. After checking, he makes notes in his notebook. We prepared pages to note what day it was and how many sprouts he counted. He is still learning to write numbers (I've added text to make it easier to interpret), but this gives him meaning to those numbers and motivation to practice – you can see on day 4 he asked me to write the numbers. By observing the trays every day, he is able to start finding changes, even small ones, like a little bit of fungus growing in the tray or the condensation on the lid. Each of these observations allows us to talk about what's happening in the world around him.

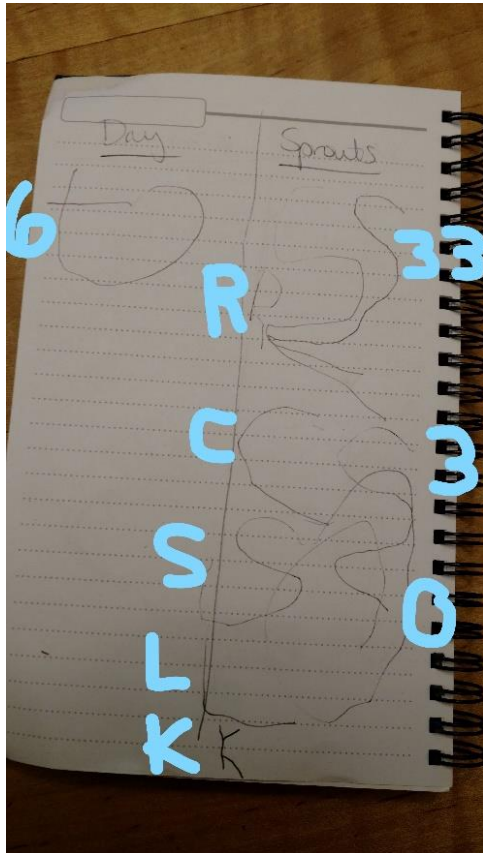


On the sixth day of checking, right before leaving for school, he ran to the trays and, finally, saw sprouts. We waited until he got home from school to check them out further. He decided to write down how many sprouts he saw and what kind they were.

Counting the sprouts provided a challenge, because while he is able to count to 100, organizing the sprouts visually into groups is difficult for a young child. It is easy to forget which sprouts you have already counted, even for an adult! The first time he counted, he almost gave up, but we worked together to count them all. The first sprouts to emerge were radishes, he was able to sound out the word and remember the kinds of seeds we started. After counting the radish sprouts, he looked closer and saw just a few chard sprouts. He counted those too.

Like any good scientist, he then had to make notes about what he saw. We started a new page in his notebook for the new observations. He soon realized that he had to change how he

made his notes because there were sprouts of different kinds. This gave him an opportunity to think about how to write down his observations so that we can compare to what we find next. You can see he is still learning his letters and numbers (added text to show what his writing says). R = radish, C = chard, S = spinach, L = lettuce, and K = kale.



While this is a simple experiment, young children learn from experiences and observation. This small effort has allowed a four-year-old child to practice literacy, writing, numbers, observation of the world around him, organize his thoughts into notes, and practice responsibility.

After all of the types of seeds sprout, we plan on working together to plant them in the greenhouse and watch them continue to grow. We hope that involving him in growing food will also help him be more willing to try new foods and give him more joy in being outside.

Hopefully you can take these ideas and make them your own, children are natural scientists and it takes very little effort to bring it out in them! What a great way to celebrate the coming of spring!