

W O M E N OF NATURAL RESOURCES

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The origin story of Women in Natural Resources at the University of Arkansas at Monticello is, we think, not unique. Nonetheless, it is ours. Female undergraduates, graduate students, and professionals in the conservation and natural resource fields have and continue to have the same experiences that initiated our genesis and journey.

Our story begins in the fall of 2016. Female enrollment had reached an all-time high in the School of Forestry and Natural Resources. Although it was an uptick, upon arrival on campus it was hard not to see how few female SFNR students there still were. Compounding that were the exceptionally few female SFNR faculty (two at that time and none as we write this article). Everywhere we looked our peers, our instructors, were male.

There is nothing inherently wrong with gender-skewed departments or disciplines. Our program is built on a tradition of forestry and training forestry professionals, which is historically male-dominated. So it is no surprise that that legacy has a tendency to skew the gender makeup of students and faculty. And in the past few years, the program has attempted to increase enrollment of minority groups. The male-dominated setting and legacy did not, by itself,

inspire the creation of WNR but it does set the stage for our origin. A number of incidents inspired us, they were not singular but commonplace.

The occurrence we describe below is illustrative of what many female students in natural resources programs can encounter and experience in a male-dominated landscape. Our characterization of the event is obviously subjective. Our intent is not to claim that we were wronged or to provide others with objective proof that we were wronged; we simply aim to describe the types of incidents and experiences that galvanized us and provided the catalyst to create WNR.

It was a warm sunny day in early summer. And by warm, we mean hot and humid; we are in southeast Arkansas, y'all. A group of students are collecting samples around a giant, heavy soil sampling auger in a lonely mixed stand in the university's campus forest. Per our instructor, the goal of this exercise is to gain experience with how this machinery is setup and operates and to successfully collect viable samples for analysis. Simple enough, a classroom activity to learn how and why it works and then use it for a practical application.

A group of male students are given instructions on how to operate the equipment and given the opportunity to do so (with supervision). Then a few female

students are ready to be given instructions and operate the machinery. The instructor shows us what do, providing instruction and a walkthrough. However, we are not given the same opportunity to operate and understand the equipment. Instead the physical task of operating the auger, and practical experience of obtaining a soil sample was taken from us, withheld, by the instructor. He wanted to help us, and he did, but it also resulted in a missed opportunity for us. Instead of having the opportunity to learn and do an exercise that is part to the course curriculum, and something a practitioner in the career fields we aspire to should have knowledge and experience doing, we were left wanting. To add to the injury, this event also included a one young woman being told by the instructor that preparing the soil samples is "just like cutting cookies."

This incident may seem small and insignificant, even trivial, but it was not an isolated incident. It is a symptom of a culture that impacts us and other women in STEM fields. For us, upon reflection by the group who experienced it, it boiled down to nothing less than feeling we were denied the same education, experience, and practical learning opportunities as male students under the same instructor and course, intentionally or not.

Women in Science

Science is male dominated. Natural resources and conservation fields, much like STEM fields, face issues of sexism, bias, harassment, disregard, aversion, and recognition. Eileen Pollack, author of “Why Why Are There Still So Few Women in Science?” and “The Only Woman in the Room“, recounts the frustration she felt when, upon graduating among the top of her class at Yale, she received little encouragement to continue on in the sciences. Returning to Yale decades later, her work outlines the persistent and systemic cultural, social, psychological, and institutional facets of gender bias and the tremendous, often unspoken, barriers these pose to women in the sciences.

In the natural resources field, calls for gender equality began as early as the 1920’s, particularly in the US Forest Service, whose history often typifies the barriers and challenges women face. For example, in 1973, discrimination lawsuit was filed after a hiring manager stated he would rather wait for a male applicant than hire a qualified female. Nearly a century later, in 2008, Forest Service Chief Tony Tooke resigned in the midst of sexual misconduct allegations. In 2016, Krista Langois showed that the legacy of harassment continues but that steps in the right direction are being taken.

In the sciences, overall, women face a similar reality. On the heels of the #MeToo and #TimesUp movements, a NASEM study found that sexual assault in the sciences (59% reported) is second only to sexual assault in the military (68%). The aftermath of which is student tardiness, absenteeism, and declining grades. The end result being a vastly different educational experience compared to that of men. Coupled with day-to-day sexism and harassment, women face an uphill battle just to find equal footing with their male counterparts.

Gender biases are not unique to the United States. Female scientists in Africa often abandon science after starting families because child care facilities are unavailable in work settings. Women scientists only account for 19% of researchers in south and east Asia. However, some Asian countries are taking huge steps to ensure gender equality among science professions, even going so far as to set on hiring qualified female applicants. For the first time in Nepal’s history, women work and earn their own wages. Job listings often detail that qualified women applicants will receive preference, as many agencies make strides to bridge the gender gap. In many cases, skilled women are chosen over men to conduct field research, as well. This does not mean that Nepali women do not work as hard or harder, they simply do not encounter the same biases and barriers to employment.

Parikrama Sapkota, a graduate student at our university and member of WNR, recounts that as a Nepali woman with a degree in biotechnology she never felt she would not be chosen for a position in her field simply because she is female; the experience of gender bias in the workplace was foreign to her. Since moving to the US, she has not experienced sexism from graduate students or professors but from student workers in the lab who fail to listen to her when she assigned them tasks or when they simply ask her major professor if those tasks need to actually be done.

In the face of gender bias, femininity is often veiled or masked. Many women dress in plain, dark clothing with simple hairstyles to be taken seriously and not seen as a distraction. A recent study on authorship, in which sex was determined by name, found an alarmingly low number of females author scholarly articles even in fields where sexes are equally represented. It is not an uncommon practice for female authors of peer reviewed articles to choose gender neutral pen names. For example, both authors of this article have names that when shortened become gender neutral. Professionally, one shortens her name (Gabe) and the other used her first and middle initials (S. A.), all in an effort to be taken more seriously by reviewers and readers alike, lest we “publish or perish”.

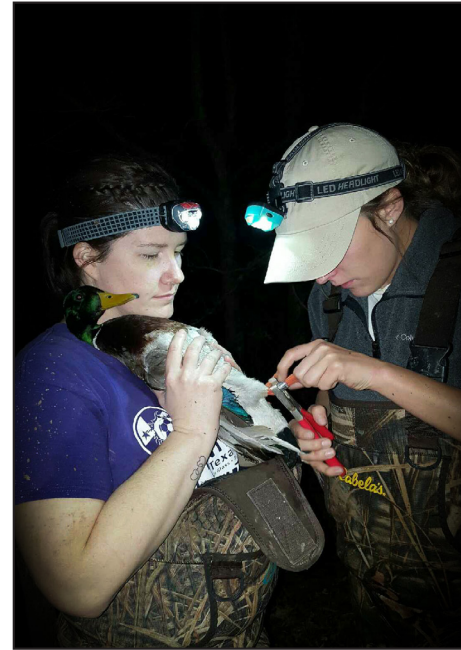
There are blogs and presentations geared toward women in science that tell them how to dress, but more notably, how to act. One such presentation took place at a Women in STEM conference at Pulaski Tech in North Little Rock, Arkansas. The goal of this conference was to encourage women to enter STEM fields and to obtain advanced degrees, however during this presentation the speaker addressed topics like not wearing wedding bands to job interviews and not voicing strong opinions. She stated that women should not behave this way because they are often seen as aggressive, and other less flattering terms. She claimed that this behavior is fine for men because it makes them appear strong and goal-oriented, perfectly detailing the double standard, and negating the intended message of the conference.

The barriers and challenges women in science and academia — STEM, natural resources, conservation, or otherwise — face has been bolstered by contemporary events like the events the March For Science, #WomenInScience, #WomenInSTEM, and, notably, the #MeToo and #TimesUp movements. That is, women are not alone, and never have been; though we have all probably felt alone at one time or another. Organizations like the Association for Women in Science, 500 Women Scientists, and Women in Conservation Leadership provide support to women across the US and world. In the natural resources, and in Arkansas and the southeast, organizations like Arkansas Women in Agriculture, Women Owning Woodlands, Becoming an Outdoors Woman, and Artemis provide support, opportunity, and inspiration.

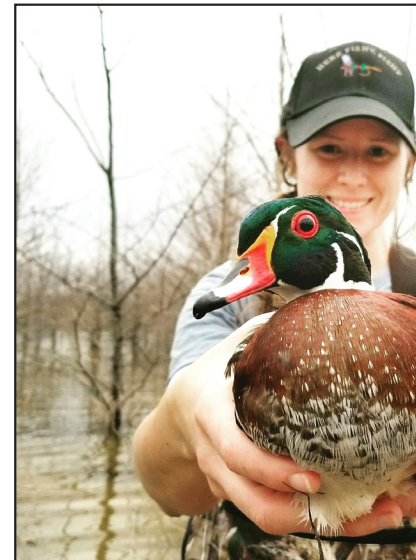
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"As a woman, it is hard to fit seamlessly into the roles which we have, until recently, occupied sparingly. There are cracks and crevices, the mold is not quite fitted to form. We have to stretch to accommodate it."



Credit: Ron Key



Below: Jess (left) and Erin (right) at the end of their Twilight 5k run in Athens, GA. It was pouring down rain for most of the run, but they did it! Erin waits while Jess climbs up the rock face. Successful graduate students network with each other and make sure to have lots of fun.





It is human nature to take comfort in people who are like you and to be part of a “tribe”, a group of like-minded individuals with similar backgrounds, goals, and aspirations. After the incident with our instructor and soil sampling, throughout the 2016 school year we found comfort and understanding among the female students of our program and the faces that became so familiar to us.

Out of this, Women of Natural Resources was born. It is a student organization dedicated to supporting women in fields like forestry, wildlife, agriculture, and other natural resources management disciplines. These fields, like our program, are traditionally male-dominated. At the University of Arkansas at Monticello, our mission is to ensure that women, and interested others, leave here with the same education, tools, and opportunity to succeed as men.

As a woman, it is hard to fit seamlessly into the roles which we have, until recently, occupied sparingly. There are cracks and crevices, the mold is not quite fitted to form. We have to stretch to accommodate it. As a woman from the southeast, studying in that same region, we often encounter cultural norms where men are invariably expected to be polite to women and women are invariably raised to expect such etiquette.

From this, the expectations for individuals entering natural resources fields and positions — fieldwork basics like driving a four-wheeler, side-by-side, or truck and trailer, wildlife techniques like live-trapping, handling, and field dressing, forestry basics like handling an axe, cant hook, or chainsaw, or other tasks placed in the domain of “man’s work” — women are inadvertently deprived of these skills and experiences. Physical or demanding tasks are seen a “man’s work” and has often led to, through personal experience, the man taking the task for himself. This creates a gap, some women think they they are not fully functioning member of the team, a hindrance even. When the tasks are so skewed, she may even be so because she is not carrying her weight, so to speak. The crux of these issues is that these sorts of behaviors are considered

polite, and in a cultural sense are not wrong. However, when these actions are taken from you it leaves your experience incomplete and a facet of your education that has been overlooked, neglected. If you are a woman in a natural resource or STEM field, you likely have a story similar to those we described.

The results of discounting these slights is not hypothetical but tangible. For those that never realized what they lost or were unintentionally denied, they come out of a higher education program lacking practical skills and experience that many men already have. For example, one of the big realizations WNR had was that, as a group, almost none of the women in our program knew how to properly load and ATV on a trailer. It is an area of expertise that many men have before they come to school at all, a skill that is taken for granted that everyone in our field has.

To improve our education and practical skills, WNR decided to take the initiative. Last year, our start-up year, a graduate student member hosted the first annual women’s duck banding night. She, along with several male colleagues, taught WNR members proper duck banding procedures and techniques. It was a smashing success, which provided a great learning atmosphere and camaraderie. This year, our second year, we hope to tackle a few more areas. A small mammal trapping project is scheduled for the winter, as well as an ATV certification course and training session with those pesky trailers. By actively engaging and encouraging our female students with projects and training designed to fill in the gaps we are taking our education in our own hands and attempting to remedy the gender gap. In doing so, we hope to provide the workforce with women who are well-trained and ready to tackle anything thrown at them.

Our goal in creating WNR is not to facilitate more segregation of the sexes, indeed, it is the exact opposite. We hope that one day specialized groups targeting women and minorities in male-dominated fields will no longer be needed.

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