LESSONS LEARNED FROM A CAREER IN FORESTRY

Education: Sustain an Enduring Profession

Editor’s note: This is the final installment of Joseph Bachman’s Lessons Learned series. While a departure from previous Lessons Learned, Bachman’s experience in the behind-the-scenes world of global forest investing provides a valuable perspective on the forestry profession. As he explains, education is at the heart of working in the forestry or natural resources profession, and a systems approach, paired with on-the-job training, is invaluable to cultivating the next generation of leaders.

By Joseph Bachman

It has been a privilege this summer to not only reflect on the lessons learned during my ongoing career, but also to hear from a number of you about similar formative and later contributing experiences that have led to careers of significance and influence, both local and global. Common to these has been our shared belief in the opportunity and the need for alignment across the richness of experiences along the way (and stories to boot), and the deep friendships cultivated through common purpose, thought, and appreciation of the resources we manage. The reflection reminds us that a career in forestry is a journey of lifelong education in the broadest sense and that competing foes among ourselves is unifying as well as enriching. Forestry as a profession for succeeding generations really needs no better selling point than these.

Forestry has taken me from the north woods of Wisconsin to the mountains of western North Carolina and other far-flung corners of the world, and now back to school, where I teach at the Nicholas School of the Environment at Duke University. As related in the August column, “The School and the Farm,” each has its role in creating a foundation of competence and credibility in resource professionals. Yet these needs have evolved as globalization has created challenges, opportunities to align management along the global forest value chain.

In my role as executive in residence in natural resource finance, I have a unique perch as a practitioner in the court of academia. In this capacity, one of my responsibilities is student advising. Supporting future foresters and helping to guide their early career steps over the last two-plus years has reinforced my belief that our profession is truly one of the most relevant and exciting today. Rich experience, relationships, and contributions of significance are at the heart of forestry. The ongoing cultivation and advancement of the forestry sector—and our individual and collective successes therein—continue to require new energy, diverse talent, and a continued commitment to channelling these essential elements. Field-based education, a renewed focus on management, and challenging young people to develop as leaders are key in sustaining our growth as a sector and as individual foresters.

Rooting curriculum in a field-based education

Much has been written and said about today’s younger generation(s): the “millennials” and “zoomers.” Indeed, one reason I chose to return to Duke was the opportunity for direct interaction with these cohorts. As a member of Generation X (Glocks, latch key, or grunge), I use the labels colloquially and not as a pejorative. Yet hearing one has heard is true and yet so untrue. While I am fascinated by the stereotypical generational differences, I encourage students not to buy into labels, but rather to heed the implicit insight they may provide. What I do know about my students is that they are highly intelligent, have a tremendous capacity to work hard, and are committed to bettering our world. These strengths outline the occasional kernels of truth specific to this generation’s unique sense of self and technologically conservative lifestyles.

Yet educating today’s students is challenging. Variable attention spans, aversion to reading (versus video), a tendency to rely on untested web-based information rather than traditional learning, commodification, and logistical silver bullets over behavioral change as solutions to environmental problems are all real considerations. “Engagement” is a popular term in higher education these days, and commitment to a common purpose by both students and teachers is clearly essential to achieving educational outcomes.

The better questions, however, are, what to teach, and how exactly to deliver education most engagingly?

In an age where information may be commoditized as “content,” a forest management education based on a foundation of systems and process is more important than ever. Why? Because forestry, its practice, and its implications are now more global, and the importance is less the situational knowledge itself, but more how professionals apply it across diverse landscapes. Although Duke is in the Southeast, its graduates will practice everywhere Woody plants exist. And while the lobolly pine is a tremendous species in terms of its adaptability and manageability, and is a supremely studied educational vehicle, teaching from a systems-based approach founded upon local resources will allow graduates to adapt and extend their educations to the four corners of the globe.

Ecological, economic, cultural, and financial systems are all relevant in the multifaceted world of forestry. Comparative experience across these disciplines, as well as across diverse systems, yields useful perspectives upon which to approach global challenge and change. The flexibility and adaptability of a systemic approach are irreplaceable.

Teaching the evolving science underlying forest systems is where forestry education should begin. Understanding the dynamics of natural systems is the essence of expertise these days, and this knowledge helps distinguish foresters as clear voices in the context of pressing issues ranging from wildfire to climate change. Furthermore, a proven pedagogical experience facilitates a strong foundation in the cycle of scientific inquiry. The formulation and testing of hypotheses—followed by careful analysis and rationalization of understanding—are valuable not only in science, but also in the current sea of unregulated information. Specificity of scientific knowledge and disciplined thinking distinguish foresters as grounded problem solvers.

Bridging the divide between “school” and “field” continues to be a challenge. How do we help forest professionals become practical problem solvers? To start, we must install values of fiscal restraint and commercialization standards that bring pertinence and respect. These principles must be actively cultivated in a forest curriculum that provides students immediate relevance in their early career steps. Leading curricula must discern between economic and finance, with an emphasis on the distinction between theory and practice. The reason for this is because, at some point, forestry—both public and private—must be commercially viable endeavor. While economics and finance have critical differences—the role of markets versus the valuation and allocation of financial resources—they are two sides of the same business imperative of value creation. As an integrative management practice, the ability to allocate scarce resources to satisfy both forest and financial demands is of tremendous value to employ- ers in the public, private, and nonprofit sectors of our profession.

So how do we deliver systems-based thinking and education with practical outcomes? By immersing students in the system. In forestry, field-based education is our secret weapon. Such experiential learning and purposeful connection to the natural world are what today’s students crave. For many, academic outdoor experiences are some of their first. In a field-based curriculum, dendrology and forest measurements engage professional students, allowing them to embrace trees at DBH, to feel the bark, call them by Latin name, and collaborate with their peers to make viable decisions in the face of real-world management challenges. This is incredibly empowering for students to realize that as they venture forth both personally and professionally. This semester, the Duke Forest—a 7,000-acre teaching and research laboratory directly adjoining campus—not only provides sanctuary from societal and academic pressures as the safest classroom possible, but also connects to the natural world absent the threats of virtual realities, social media, Zoom, and the hazards of blue light. Those of us teaching online this term are deeply envious of the opportunity to photosynthesize.

The imperative of management

Field-based education engages students and provokes them to embrace complexity and the existential value of natural systems. In a multidisciplinary academic setting with multiple lenses, the challenge is choreographing educational approaches by discipline to create an experience that bridges the distance between school and farm, theory and practice. The goal is not only an understanding of how to integrate perspectives and frequently spark realization that study must arrive at the point of decision, and thought must yield to action. Simply put, the imperative of management. The conventional classroom can facilitate knowledge transfer, provoke thought, and even teach students some skills that, over time, can evolve into expertise. What is difficult is preparing students to use these skills and knowledge in making those early decisions needed to ensure a good start, but many of those lessons traditionally come through entry-level roles—ones that pay first-time foresters the lifelong dividends of credibility from having “done the job.”

I recall being assigned a large tract of land owned by Champion International in Haywood County, North Carolina, by two mentors, Kevin McElwee and Jim Runyan. They provided a length of rope, very few constraints, and sparing guidance, as well as a tremendous amount of support as I assumed responsibility for creating a management plan and then logging high-value stands.

The fact that I was held accountable for those decisions was one of the best professional gifts I could have had in my 20s. Even better, these responsibilities were replicated across Champion’s operations in 15 states for many other young people in similar roles. Through the 1990s, many of us across integrated companies and public management agencies had analogous early opportunities as nascent foresters managed both public and private forests. Unfortunately, given industry consolidation and wholesale changes in land management, in part driven by changing land tenure and varying management structure, such experience-yielding entry roles today are fewer and less diverse. In a recent conversation with one of the benefactors of my position at Duke, Scott Jones, former president of Forest Capital Partners and a director of Rayonier Inc., lamented that “There are no more minor leagues.” In a conversation about earlier years, when young foresters actually had more abundant opportunity to discover the privilege of both taking risks and accepting responsibility to manage.

Facilitating experience

The answer to this? Although it may be more challenging to garner on the ground—meaning in-the-field experiences in a forest management career today, it can be done. Inventory experience may be gained over the summer. Timber sale layout and logging supervision might be a separate experience in another organization, and land management might come from yet another. While this amalgamated approach is more difficult than working for a large integrated company—and the continuity of long-term stewardship may get lost along the way—it is still a feasible means of developing professional breadth and skill.

Doing so requires a much more intentional approach that will necessitate established guidelines, encouragement, and support.

Organizations able to sponsor hands-on experience via internships should do so with clear purpose. Such opportunities allow young foresters to be interviewed and get a taste of what might be in store for them in full-time positions. Internships must also allow some weeks of “the real thing” and not just chain young professionals to the virtual desktop reality of GIS or data analysis.
THE FUTURE OF SAF

Skylar Roach: Creating a Welcoming Space within Forestry

Editor’s note: Continuing with profiles of up-and-coming SAF members who will continue managing our nation’s natural resources in the coming decades, this month we feature Skylar Roach. Roach is an undergraduate at the University of Massachusetts (UMass), where she is earning a degree in natural resources conservation with a focus on forest ecology and conservation. Roach is the District 6 student rep for SAF (District 6 includes Rhode Island, which would have hosted the national convention before it was pivoted to being virtual). She also is a trained peer mentor for undergraduates considering a natural resources conservation degree at UMass.

As vice-president of the UMass SAF student chapter, she and other chapter members are leading an effort to push international environmentalism and support people of all backgrounds in the forestry and natural resources profession.

In her own words, Roach shares how she was hooked on becoming a forester early on, and learned how to become an ally.

By Skylar Roach

My journey home to forestry

I have always loved the outdoors and felt a specific pull toward forestry. My parents prioritized outdoor education; I grew up staring up at the crowns of trees and down at marks in the dirt. We explored beaches and swamps and set up trail cameras to watch the wildlife behind our house. Yet in high school, I moved as far away from the outdoors and science as I could.

Fast forward: A month into college at the University of Massachusetts, what I thought I wanted was wrong. Not wrong as in bad, just something was not fitting right. I wanted to do more than sit behind a desk with an undergraduate degree in history, which is what I was pursuing. I started learning more about climate change and the threats to our natural environment, and decided to work in that area. Saving the planet, what an adventure! I decided it was time to go home, back to looking up at the tree crowns and down toward the soil.

I declared a major in natural resources conservation and selected the forest ecology and conservation track. For one semester, I participated in an exchange program with the University of Montana. There, I learned about the forests of the Northern Rockies, which are so different than the mountains of New England. This experience opened my eyes to research as a career option and showed me new perspectives on the issues facing our forests.

I now am part of the process of applying for graduate programs and want to pursue a career in research. I want to study how forests can be more resilient in the face of climate change. I am especially interested in the interactions between trees and other organisms, like fungi and insects, and how they create symbiotic relationships. Through my experiences at UMass, I have worked on research projects as part of a team, and have come to love the way problems are solved and answers found.

Advocacy in natural resources

My mother raised me to do good. She emphasized responsibility and good morals, but the words I live by are, “Do the most good, where you can, when you can.” This advice guides my decisions and my goals. I often ask myself, when an issue in my community comes to light, “What can I do?” These past six months of covid-19 and the Black Lives Matter movement have meant that I ask that question of myself almost daily. Part of it is because I can never understand the experiences of Black, Indigenous, or People of Color (BIPOC) in natural resources or the broader world, but I need to find a starting point.

For a while, I was at a loss. As a white woman, albeit a queer one, I sit high on the privilege scale. I didn’t have the education or even the words to find a starting point. Yet I had to do something, so I asked myself, “What would my mother have me do?” I started to educate myself by reading US history. I reflected on the times when I had felt excluded in the forestry and natural resources community. I counted the times when I’ve been the only woman in the room and identified what I would need to have feel more comfortable, more included.

Over the course of my undergraduate experience, I have had discussions with faculty members about calling out the mild sexism of some of our older professors. Their comments, such as “When I was younger, they didn’t let women into this department,” were followed by pointed looks at the four women in the classroom. Or when I was taught the history of forestry, we learned only about the contributions of white men and nothing of their shortcomings, as if they were gods. But these efforts haven’t been enough and only solve part of the problem; they only address the exclusionary parts of universities after a student has made it into a classroom. What about the rest of student life at a university? The research experiences, the advising, and the club activities we push for students to be involved in? There was something I was missing.

After attending a #BlackSTEM webinar put on by my university, I realized that what I had needed as a freshman was an advocate. Advocacy is different than mentorship. Mentorship shows you the ropes; advocacy puts you on the ship or calls the captain and says, “I’ve got a young woman fit to be a sailor. You should hire her.” This is a powerful idea, and something I can do.

In response to this practice of advocacy, and with the help of a professor and other...