Discussions about race and environment are often difficult but critical. Author Naomi Klein writes, “we need everyone to change everything,” imploring us all to work together to effect big change.

As educators, Outdoor U has a responsibility to address important questions in our field. How do we reach a broader audience? How do we ensure that everyone has equal access to the vitality and solace offered by the natural environment? But even more, how can we ensure that injustice is not preventing people from connecting with the environment? How can we ensure that the white and Somali school children who visit the Abbey Arboretum have the same capacity for imagining themselves as outdoor educators, foresters, or climate change activists?

Biodiversity is essential to healthy and resilient ecosystems. Our social systems and communities are the same. Diversity helps us thrive because it means more minds coming to the table to brainstorm solutions, more experiences shedding light on problems, and more relationships to draw on when the going gets tough. Diversity is central to realizing a value that most people share: community. We all want our natural and social communities to be healthy.

Building diversity at Outdoor U requires what former CSB president Mary Dana Hinton calls transformative inclusion. This means transforming the “we” rather than just adding new people. In the United States, a country founded in a context of slavery, with ongoing inequality on the basis of race, it is important to consider race specifically when we talk about inclusion and ask the kinds of questions I pose above.

As a white person, answering the above questions first necessitates that I recognize the unearned benefits of being white. I am able to spend my time worrying about climate change because I do not have to worry about my child getting asthma from living next to a coal-fired power plant or diesel bus station.

Answering the above questions requires doing some deep learning about racism and how to be anti-racist, because it is not enough to be not racist, as author Ibram X. Kendi points out. Being anti-racist is about deconstructing and rebuilding the systems that perpetuate racism, supporting people of color-led initiatives, and speaking out to help others begin their anti-racist journeys.

In the context of Outdoor U, staff eloquently articulated an anti-racist agenda in a statement posted on their website:

With humility and determination, we are committed to (at a minimum):

- Reduce barriers to outdoor experiences for BIPOC (black, indigenous, and people of color) and other marginalized peoples;
- Educate, ourselves and our CSB/SJU students, about the history of racism and decreased access to the outdoors and environmental careers for BIPOC;
- Create and foster relationships with people and organizations, both within and outside the CSB/SJU community, that lead to authentic outdoor experiences for BIPOC youth, college students, and adults.

Such actions are not only urgent and just, they are fundamental to practicing the Benedictine Values and educating young people to be critical, principled, courageous, and passionate leaders.

Educating ourselves about racism includes learning about the connections between race and the environment. Starting in the 1980s, a new field of community organizing and academic scholarship emerged under the umbrella of environmental justice. Environmental justice...
is the idea that achieving social justice requires a healthy environment; and that creating or preserving a healthy environment requires meaningful participation of all people, especially those most affected by environmental degradation.

In 1987, a landmark study by the United Church of Christ demonstrated widespread environmental racism, a term used to describe the fact that race proved to be the most significant predictor of living next to a toxic waste facility. Toxic facilities pollute both the natural and built environment, making people sick in the spaces where they live, work, and play. Motivated by this disproportionate impact of environmental hazards on communities of color, a trend that continues today, people across the country fought and continue to fight for recognition of the links between race and environment and for solutions for hardest hit communities.

Class is also an important factor. Toxic industries typically target poor communities, which are often people of color communities, because these communities may have fewer resources (legal, financial, political) with which to create opposition. Climate change also affects these communities first and worst. For example, climate change will damage wild rice yields. This disproportionately affects the Anishinaabe, especially the poorest Anishinaabe who depend on wild rice for subsistence.

But race and class are only two facets of identity. Legal Scholar Kimberlé Crenshaw’s idea of intersectionality urges us to always consider how all our identities – race, class, gender, sexuality, immigration status, ability – combine to inform how we experience privilege and oppression. So even when we focus on race, as I do in this essay, we must realize that how people interact with the environment, how we experience privilege or marginalization in relation to the environment, is shaped by all of our identities, together.

Imagine that a white, able-bodied man went walking in the Abbey Arboretum. He wouldn’t end up thinking about how his ancestors were forcibly removed from the woods of Minnesota, as a Native person might. He likely wouldn’t worry about walking alone, as a woman might. He wouldn’t have to figure out how to navigate a rocky trail, as a person with a physical disability might. A Native woman with a physical disability would have a different experience of being out in the Arb. This is the idea of intersectionality.

People of color must navigate these disproportionate environmental and climate impacts in a context of structural racism, a form of racism that pervades all our social systems (e.g. criminal justice, education, housing, to name but a few). This systemic structural – not necessarily individual – racism is the underlying cause of police murders of black people, like that of George Floyd in Minneapolis this summer.

Structural racism means that, despite being significantly more concerned about climate change than white people (Yale Program on Climate Change Communication), black and Latinx Americans may have less energy and resources to work on environmental issues.

As a new mother of a white child, I cannot fathom the worry a black mother must feel raising a child in this context of structural racism. I imagine she may not have much mental space to spend on climate change or prairie restoration, no matter how passionate she is about these pursuits. That isn’t to say that people of color are not leaders in environmental sectors. They deal with racism on a daily basis and lead communities in struggles for environmental justice. Winona LaDuke and MN350’s Executive Director Sam Grant are two local examples.

In closing, I hope this essay helps you, fellow Outdoor U members and supporters, to begin to understand how race connects with your existing interest in the natural environment. Identifying our shared values and understanding how different passions intersect is a first step to working together. In this spirit, I invite you to continue learning about privilege and race, to throw your hands and hearts into dismantling racism, and in doing so, to advance our efforts to steward all environments for humans and the more than human world.

Dr. Corrie Grosse is an assistant professor of environmental studies who specializes in the intersections of energy, climate justice, and grassroots organizing.
Things are Looking Rosy in the Abbey Arboretum  

Dr. Stephen Saupe

This past June I was contacted by a fellow plant lover, Tony Ernst, who had been tromping around on campus. He told me that he found Rose pogonia (Pogonia ophioglossoides), a beautiful pink orchid and wondered if we had any specimens of it in the CSB/SJU Bailey Herbarium. Hearing this news I was, as my daughter Erin who lives in England might say, “gobsmacked.”

Tony’s report is the first record of Pogonia in the Abbey Arboretum. Despite my 40 years of exploration, work by MN DNR botanists during the MN County Biological Survey (MCBS), and countless other campus explorers, this gorgeous plant had eluded previous notice.

Though special for our campus, it is not particularly rare in Minnesota. It grows primarily in the mixed coniferous forests in the Arrowhead region. Pogonia was first reported in Stearns County in 1997 by Michael Lee (MN DNR). While doing fieldwork for the MCBS, Mike located populations near Birch Lake and St. Augusta.

To learn more about this orchid I consulted the “orchid bible,” Native Orchids of Minnesota by Welby Smith. He says, “you will know you are in good habitat when you are standing in a thick, fluffy carpet of Sphagnum moss that moves in undulating waves as you walk on it.” That’s exactly the habitat in which Tony was standing when he discovered it, and where I later visited with Mike to marvel at our new campus resident. I wonder why no one had previously seen this orchid.

Some of my monastic predecessors in the biology department were amazing botanists and surely would have noticed it. Father James Hansen, O.S.B., deposited many plants in our herbarium including several other species of orchid. Working between about 1900 and 1908, Fr. James collected specimens of Round-leaved orchid (Amerorchis rotundifolia), Tuberous grass-pink (Calopogon tuberosus), Stemless lady’s-slipper (Cypripedium acaule), Ram’s-head lady’s-slipper (Cypripedium arietinum), and the Showy lady’s-slipper (Cypripedium reginae). With a few exceptions (i.e. Showy lady’s-slipper), most of them haven’t been documented on campus since.

Sister Remberta Westkaemper, O.S.B., who was the founder of the CSB biology department and a former president of the college, specialized in the flora of Stearns County. She deposited more than two dozen orchid specimens in the herbarium of the Bell Museum of Natural History at the University of Minnesota, including four she collected on campus – but none were Pogonia.

Dr. Nick Zaczkowski, who served as curator of the Bailey Herbarium before me, and Dr. Liz Wurdak, a recent biology department retiree, collectively spent countless hours scouring campus for plants. They didn’t find Pogonia.

A few years ago, Paul Melchior, a Saint John’s alumnus who is now a professor at North Hennepin Community College, and I worked on a project to describe the flora of campus. We visited the Pogonia site on multiple occasions. We didn’t find it, either.

There are at least two possible reasons it took so long to find. Perhaps Pogonia has been there all along and we simply missed it. Or because it has persnickety conditions for flowering, it doesn’t bloom every year. During DNR field surveys, Mike Lee reports that it is not unusual to discover a plant only after his third or fourth site visit.

Alternatively, Pogonia could be a relatively new immigrant to the Abbey Arboretum. In fact, we might even be able to estimate the year it arrived.

This wouldn’t be possible with most orchids. But Pogonia has an interesting trait that is uncommon among orchids, and plants, in general. These orchids can vegetatively reproduce from buds on their roots. In other words, Pogonia spreads from its roots. If we periodically measure the diameter of the Pogonia patch, we should be able to calculate the annual rate of colony expansion. Using this value we could predict the year when Pogonia joined our Benedictine community.

This same technique has been used to determine the age of fairy rings, which are circles of mushrooms that form in grassy areas like a lawn. The fairy ring of one mushroom in France is reported to be over 2000 feet in diameter and likely started growing in the 1300s!

No matter whether the Pogonia is a recent arrival or an overlooked hermit, I think it’s time for a welcome party. It’s the Benedictine way.

Dr. Stephen Saupe is a CSB/SJU professor of biology and our go-to expert for all things botany. Many thanks to Michael Lee, MN DNR, MCBS, Sauk Rapids (MN) for his helpful and insightful comments on a previous draft of this article.
The Latin name for oaks, *Quercus*, means “beautiful tree.” The oaks are the largest tree genus in the United States and some might argue, the most important. The oak tree’s acorns are a protein rich food source that support dozens of forest species through the winter when food is otherwise scarce. It provides ideal habitat and cover, aesthetics and beauty, an array of forest product and timber uses, and significant ecological value in many forest ecosystems throughout the country.

The mature oak forests of that the Benedictines encountered upon founding Saint John’s is increasingly rare in the region. Hiking in the Abbey Arboretum, particularly during the vibrant fall color, the full canopy of leaves easily captures our attention.

But as a forest ages, that full canopy shades out sun-hungry species like oak and begins to favor shade-tolerant maple and basswood. For thousands of years, oak forests regenerated through both natural and human disturbances – windstorms, logging, and fire – that opened the canopy to shed light on the forest floor.

Early surveyors of Saint John’s noted evidence of recent fire, probably by the Dakota in the region, which helped maintain oak dominance prior to European settlement. When the Benedictines arrived, their rapid harvesting of timber also helped perpetuate the oak forests, a result we see in the 125-150 year-old oaks in the forest today.

When today’s trees were seedlings on the forest floor, they had to compete with other understory vegetation for light and nutrients, as do seedlings today. But they did not have to contend with the hungry white-tailed deer. In fact, there were so few deer in the region that when Saint John’s was designated a state game refuge in 1933, five deer were introduced to the forest. Now with 18-20 deer per square mile, almost every oak seedling over a foot high that is not actively protected is browsed to death. Even with an annual deer hunt, the deer population continues to grow with the perfect woodland edge habitat, access to agricultural lands for additional food, and a low abundance of natural predators.

We’ve adopted a series of management practices on a 100-plus year rotation to work to create a mosaic of age classes that will increase forest resilience in the face of challenges such as oak wilt, gypsy moth, and climate change. Successful oak regeneration with our nutrient-rich soils, moderate moisture, and high deer populations boils down to the equation above.

Seeds
Abundant acorn crops, or “mast years,” occur irregularly and are largely dependent on weather. Late spring frosts and drought can limit fall acorn production. When possible, we prefer natural-regeneration seedlings, but we also plant seedlings grown by the MN State Forest Nursery using acorns collected from the Abbey Arboretum in previous seasons.

Soil, sunlight, and water
Once acorns have dropped in the fall, we increase the odds of successful germination by pushing the acorns in contact with the mineral soil with our log skidder while also harvesting or pushing down all the trees in a 100-foot wide strip of forest. These regeneration strips are oriented north and south to provide the
necessary sunlight. The edges of the strips on the east and west also provide shade from the sides to help seedlings through dry periods.

**Understory Competition**

On this nutrient-rich ground, the minute sunlight hits the forest floor, everything wants to grow. Competition from maples, ironwood, basswood, prickly ash, blackberry, and raspberry can quickly overcome and shade oak seedlings. During the initial two years in the regeneration strip, we weed and cut the competition crowding the oak seedlings at least twice per season. In years three and four, we remove competing species once per year. By this time, the seedlings are well-established and can compete on their own.

**Deer Protection**

There are many strategies to protect seedlings from deer and we’ve used most of them: plastic tree shelters, fenced deer exclosures, deer deterring scents and bud caps. We’ve begun using individual tree cages on our young oaks in the regeneration areas. Cages are made from six-foot-high welded wire fence held in place with two pieces of five-foot rebar. We anticipate leaving the cages on the trees for seven years until the young oak saplings are at least eight-feet-tall, above the typical deer browse height. The initial cost for this method of deer protection is high but it is effective, and the cages can be moved to new regeneration strips in future years.

Managing the forest for oaks is a long, labor intensive, and costly pursuit. We work to maintain the biodiversity that oak forests bring to the landscape, because we have a duty – an honor, really – to care for these trees and this ecosystem as a whole for the benefit of both the human and the non-human world.

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**John Geissler** is the Outdoor U director an Abbey land manager. There is nothing more gratifying to the team of land managers and volunteers than a ten-foot tall oak sapling ready to grow for the next several hundred years. What a gift to the year 2261!

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**Just a ‘Normal’ Day**  

Sarah Gainey

It could have been any other September morning. I was dressed and ready to lead CSB/SJU students on a hike for their biology lab to observe and discuss the waterscape on campus. My two daughters were at school, working hard in their 2nd and 3rd grade classrooms. My husband was in his classroom, teaching middle and high school science. The leaves were changing, the air was crisp, and things felt normal. But this was not any September morning.

The global pandemic and the efforts to slow the spread of COVID-19 completely changed my job this fall. Instead of preparing myself and my student naturalists to teach thousands of preK-12 students on field trips, we were meeting over Zoom trying to figure out how to reach those kids virtually. On a day when I should have been excited to be outdoors with little kids, I was wearing a mask and planning how to walk six-feet away from the college students. Nothing was normal about this day. But I found my four students and started the biology lab.

When I teach college students, I tell them I am used to teaching students much smaller and wigglier, who immediately bombard me with questions. I ask them to channel their inner child to get them to remember the excitement of being on a field trip. (I also typically bribe them with candy to get them to talk to me. But due to health and safety restrictions, I had to come up with something else.)

I’ve thought a lot about the use of personal stories to connect people over difficult topics. Through a partnership with Climate Generation: A Will Steger Legacy, I have
participated in events that prompt people to use personal climate stories to find areas in common to start making change over an issue that can be otherwise divisive. The topic of the biology lab – the waterscape at Saint John’s – is not necessarily controversial but I decided to put that skill to use for this lesson.

I asked everyone to share how water (or lack thereof) played a role in their lives when growing up. I shared how growing up in southern Minnesota included summer lake swimming and winter ice skating on the frozen river in our town. The next three students, also from Minnesota, shared stories of fishing, cabins, and water sports. The fourth student shared that she grew up on an island nation and had only ever swam in salt water.

Heading from campus towards Lake Sagatagan, the changing leaves and calm waters greeted us as we reached the beach. We stopped to quietly observe the lake, watching seagulls bend and twist over the water. I commented on how amazing it is to walk less than five minutes from their classroom and be surrounded by this natural landscape. Everyone nodded in agreement.

Among their first observations of Lake Sag, was the lack of development along the shore. Instead of seeing rows of cabins and docks, the lake is almost entirely surrounded by natural shoreline. The international student noted the color of the lake as it compared to the blue-green of the ocean. I could not recall another time during a biology lab when someone had commented on the color of the lake.

Continuing along the Chapel Trail, we stopped to talk about the human and natural history of Lake Sagatagan. Under the towering pines and across the timberframe bridge, small group conversations kept the stories flowing. The international student shared how she came to enroll at CSB/SJU. A sophomore on the football team detailed the ups and downs of the season due to the pandemic. I shared my history of working at Outdoor U and missing the kids I would normally be teaching. Our stories kept weaving us closer (while staying six-feet apart).

We sat at Prep Point, viewing the Stella Maris chapel across the water. The discussion turned to the differences in swimming in salt versus fresh water. A Minnesota student said she liked freshwater swimming because the salt water dried out her eyes and lips. The international student wondered aloud if the fresh water was clean enough to swim in compared to salt water. I shared that I am very afraid to swim in any type of water when I can’t see clearly into the water around me. We all took a moment to ponder these different perspectives.

Beyond Prep Point, we hiked through an area of high beaver activity. Large and small trees are taken by beavers across the lake to the active beaver lodge next to the first floating bridge on the trail. One of the students talked about always seeing beavers and muskrats active on the lake later in the evening. The girl from Minnesota realized her international counterpart had never seen a beaver before and started to describe it for her.

I like to end my biology labs under the towering pines and spruce of the trail, before it cuts away from campus, heading deeper into the woods. I share that these are the oldest planted trees documented in the state of Minnesota, planted by the monks in 1896 after a tornado flattened the area. I also share that the bricks that make up the Quad were made from clay dredged up from Lake Sag in the late 1800s. Eyes always widen at those two facts as I transition to the idea of land stewardship that the Benedictines promote and Outdoor U executes.

My last request to these students was to use the last twenty minutes of their lab to find a place outdoors to sit by themselves, take off their masks, and just be outside. Everyone needs that experience, especially these busy college students. But as I described what I wanted them to do, I noticed the international students’ eyes grow wide with apprehension. I immediately knew she was not going to be comfortable by herself. As I started to make myself available to her to help her find a spot, the other girl from Minnesota jumped in and offered to walk with her, sit in proximity, and then walk her back to campus. Relief replaced apprehension in her eyes and together they walked down the trail: two people who grew up worlds apart now connected through their own stories and a new understanding of this local waterscape.
Gratitude
SAINT JOHN’S OUTDOOR UNIVERSITY

“Gratitude is a thankful appreciation for what an individual receives, whether tangible or intangible. With gratitude, people acknowledge the goodness in their lives. In the process, people usually recognize that the source of that goodness lies at least partially outside themselves. As a result, gratitude also helps people connect to something larger than themselves as individuals — whether to other people, nature, or a higher power.” - Harvard Medical School, Mental Health Letter, 2011

We are entering the season of gratitude and in a year that has been like no other in recent memory, gratitude is something we wish to honor and celebrate.

TO OUR MEMBERS:
Whether you’ve been giving for decades or have joined us anew, we recognize that the decision to give does not always come lightly. You give because you believe in the value of environmental and outdoor education in the community, because conservation of the biodiversity of the Abbey Arboretum is important, because an experience with Outdoor U was meaningful, or because you’re looking for a meaningful experience for yourself and others. Whatever inspires you, we receive your gifts with humility as we continue to pursue our work in your names.

TO OUR VOLUNTEERS:
Working the land, helping with field trips, leading and supporting events, serving on our advisory council. It’s not always glamorous, but the richness is immeasurable. Working in community toward a common goal that is bigger than us all gives us strength, resolve, and purpose.

TO SAINT JOHN’S ABBEY, THE COLLEGE OF SAINT BENEDICT, AND SAINT JOHN’S UNIVERSITY:
You provide the foundation upon which all our work stands: the landscape of the Abbey Arboretum; the incredible vision of these institutions to harness the power of the natural world for education, recreation, and spiritual renewal; the Benedictine Values, a blueprint for an environmental ethos. All of these ground us in our pursuits to service and environmental education in our community.

TO THE CSB/SJU STUDENTS:
You make us feel older and younger in the same breath. You bring renewed energy to our programming, and you continually push us to stretch our mission to have a brighter, fresher, more inclusive and just future while continuing to honor the legacies of our past. You make us a little crazy sometimes, but we wouldn’t have it any other way.

TO OUR COMMUNITY PARTNERS:
Schools, non-profits, local businesses, and sponsors: the breadth and scope of our programs would not be possible without your support and collaboration. To connect people with the natural world, increase environmental literacy, and inspire another generation of environmental and conservation leaders takes a village and we are grateful to have you in ours.

The annual December Open House is one of our favorite ways to celebrate our community each year. And with the generosity of many local artists and businesses, our silent auction fundraiser has been a festive way to support our programming. But we cannot invite you to celebrate with us in person this year.

In place of our auction fundraiser, we ask you to consider an extra donation of $20.20 (or $2.020, $202.0, $2020, as it were) as we bid farewell to the strange, difficult, and beautiful year that was 2020. We look forward, with excitement and continuing gratitude, to seeing you again in 2021.

csbsju.edu/outdooru/gratitude