Environmental Econnection Summer 2024

Inside This Issue...

4

11

12

12

12

13

14

20

22

A Note From the Chair
Faculty Updates
Heather Bedi Michael Beevers Wande Benka-Coker Allyssa Decker Maggie Douglas Kristin Strock
Emeriti Faculty Updates
Michael Heiman Candie WIlderman
Welcome Kerri Thauby
Department News
Students Throughout the Year
Olivia Trombley's Reflection as a Water Quality Technician
Interview with Charlotte Kratovil- Levelle '24 about her Honors Research on Club Moss
Co-Curricular Programs
ALLARM Update CSE Update Farm Update
Alumni Updates



Back Row: Michael Beevers, Sarah Sterner, Kristin Strock, Allyssa Decker, and Maggie Douglas Front Row: Liz Burke, Kim Van Fleet, Kerri Thauby, and Heather Bedi Not Pictured: Wande Benka-Coker

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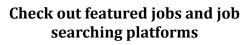
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A Note From the Chair

Although 2023 was the hottest year on record since global record-keeping began in 1850 (<u>Climate.gov</u>), Environmental Studies department students, alums, and faculty continue to develop unique solutions to address pressing environmental and societal challenges. I am inspired by these accomplishments, which are sprinkled throughout this newsletter. I will use this space to highlight how our students keep our community strong and inspire us to promote positive environmental and societal change. Majors requested more informal opportunities to engage with faculty, staff, and other students. In conversation with majors and the majors committee, we planned a range of



PROFESSOR BEDI AND STUDENTS AT THE DOGS OF ENVIRONMENTAL STUDIES EVENT

events throughout the year. Thanks to our Academic Department Coordinator (Kerri Thauby) and academic technician (Liz Burke) for making these events happen!

We have a new student working group on Diversity, Equity, and Inclusion thanks to Kiara Ganther '24, Monce Baltier-Moreno '24, Maia Washington '25, and Amiya Marbles '26. The group hosted a successful alumni panel and a networking event. Research and advising roundtables with faculty and students allowed us to discuss environmental change inside and outside the classroom. A chips and guac event with me on the Mermaid trellis provided time for students to connect and give informal feedback on our department and majors. Students proposed a meet and greet event with the dogs of Environmental Studies, which the canine and human attendees all enjoyed.

Congratulations to our 2024 honors research students: Charlotte Kratovil-Lavelle (Join the Club(moss)! Lycopodiaceae taxa as important habitat for spiders within broader forest ecosystems, advisor Professor Loeffler) and Prerana Patil (Rates of Methane Production in a Eutrophic, Cyano-Dominant Reservoir, advisor Professor Strock).

Congratulations to our 2024 department award winners: Prerana Patil was awarded the Environmental Studies Award for Environmental Scholarship and Research, Monce Baltier-Moreno was awarded the Environmental Studies Award for Environmental Activism and Social Change, and Eve London and Michelle Hom were awarded the Environmental Studies Service Award.

Congratulations to our December and May graduates! Many of these students started the major on Zoom, with ENST 161 entirely online and ENST 162 offered in a hybrid format. Despite these trying circumstances, these recent graduates thrived on and off campus.

The department will undertake a ten-year review over the next year. This is a great chance for us to reflect on the interdisciplinary ways our community understands and seeks to respond to environmental change. We welcome your feedback on your Environmental Studies experience at Dickinson and what you would like the department to do and be in the future.

We are in the early stages of planning an energy transition event on campus. If you are working on energy issues please get in touch.

We look forward to learning about your environmental change-making!

Take care,

Heather Bedi bedih@dickinson.edu

Professor Bedi

I hope this newsletter finds you and yours happy and healthy! My interdisciplinary courses continue contributing to the Environmental Studies and Sociology Departments, the Food Studies Certificate Program, and community service learning. I aim to create inclusive learning spaces for all, acknowledge historical and contemporary environmental injustices, and encourage students to ask questions about the world around them. I received the AAG Harm J. de Blij Award for Excellence in Undergraduate Geography Teaching from the American Association of Geographers.

My teaching is strengthened through my role as an engaged member of my home and international communities. I have actively sought opportunities to listen to and respond to needs identified by regional partners. Through these engagements, community partners invited me to serve on the Pennsylvania Department of Environmental Protection's Environmental Justice Advisory Board and the Cumberland County Food System Alliance. I have been able to translate my volunteer board work into meaningful research projects for our community while creating experiential learning opportunities for majors, including a recent version of the Cumberland County Food System Assessment.

I had the pleasure of teaching the bookends of the Dickinson experience this past year: First Year Seminar and Senior Seminar. My first year took a very local view of food and poverty issues in Carlisle and Cumberland County. With help from my rescue dog, Apollo, the group formed a tight bond and remained close. In the Senior Seminar, we were also lucky to create an opening and engaging space to discuss vital environmental issues and what life post-Dickinson looks like. We read Sarah Jaquette Ray's book, A Field Guide to Climate Anxiety. As a group, we were impressed by Dr. Ray's practical ideas for finding your unique skills and capacities to address climate change, while maintaining balance and happiness in your personal life.

I continue to be impressed by the thoughtful ways our students apply classroom learning to real-world issues. During our spring 2023 Energy Transition and Sustainability Mosaic (co-organized with Dr. Antje <u>Pfannkuchen</u>), students carefully considered how to address the carbon dioxide emissions associated with our travel to Germany. The group integrated these questions into the Mosaic through classroom curriculum, travel planning and operations, carbon dioxide offsets, experiential learning, and educational outreach. Mosaic students projected their carbon emissions pre-departure, reduced their carbon footprint in Germany, engaged in education upon return to campus, and closed their carbon loop at the end of the semester with the help of carbon offsets. Two students (now alumnae- Sophie Walsh '23 and Scarlett Davidovich '24), Lindsey Lyons, and I wrote a journal article on this experience to inspire others to consider the carbon costs of travel.

I will be on a research sabbatical for the upcoming year. My two main focal areas for current work are 1) exploring motivations for renewable energy adoption at the municipal level and 2) supporting climate networks to bridge the gaps between science and policy and integrating local and Indigenous knowledge into the governance frontier. Please send updates on the amazing work you are doing!

Take care.

Heather Bedi





GERMAN MOSAIC AT THE RENEWABLE ENERGY POWERED GERMAN PARLIAMENT BUILDING

Professor Beevers

It's incredible that it has been two years since the last newsletter. How time flies! \bigcirc I hope that everyone is doing well -- happy and healthy. I am doing well myself and after more than a decade, I am still finding inspiration from the students, faculty and staff of Dickinson and the community of Carlisle. The Department of Environmental Studies continues to grow and evolve, and I am delighted to be working with my tremendously smart and supportive colleagues.

During the 2022-2023 academic year, I was living in Geneva, Switzerland where I was a Visiting Fellow at the <u>Centre for Conflict, Development and Peacebuilding</u> at the <u>Graduate Institute of International and Development Studies</u>.



It was an intellectually invigorating place to be. Geneva is a hub of the international policy world with the United Nations and its affiliated agencies located there -- along with literally hundreds of non-governmental organizations. My scholarship, which focuses on the linkages between conflict, peacebuilding, climate change and the environment, was often front and center in high-level workshops and forums, and I was able to be involved in many productive and policy-relevant discussions. I was able to start several research projects to understand how conflict and peacebuilding can best be integrated into climate adaptation funding and other aspects of climate financing. An article "Conflict Sensitivity in Climate Financing: Risks and Opportunities Across the Adaptation Cycle" should be coming out later this year. I also worked on two World Bank projects aimed to assist the international community in implementing (and financing) climate actions in countries characterized by fragility, conflict and violence (FCV). I served as expert and co-author on an "Approach Note for Promoting FCV-Sensitive Climate Action" and a comprehensive World Bank report "A Framework for Promoting Climate Action in Settings Affected by Fragility, Conflict and Violence". I continue to conduct research in this important area in the hopes that future climate financing, which is important in adapting and building resilience to climate change, contributes to underlying foundations essential for peace in places often wracked by war and violence.

Last year (2023-2024), I was back in the classroom, and it was nice to be with students again. I taught "Environmental Connections" (ENST 161) in the fall, which was amazing. There is always an excitement and curiosity that bubbles up from students new to Dickinson and the field of Environmental Studies. If you've been in the class before, you know that we write Op-Eds and send them to local newspapers and news sites. Last year, we had eight of them published! Here are select Op-Eds from students <u>Maggie Conklin, Lucy Stott</u>,



PROF BEEVERS'S DOG DAISY WITH STUDENTS and <u>Elizabeth Allen</u>. I also taught my "Environment, Conflict and Peace" (ENST 372) class for the first time since 2019. It was great to be teaching a class that directly engages with my research and to see students thinking about the intersection of these important issues. Indeed, I expect to have several students working on related research with me or independently in the coming year. I am excited about that.

Anyway, that is a brief update. Please keep in touch and feel free to drop me a line. I always look forward to hearing what alums are up to and how they are engaging and changing the world and their communities. Take care and be well.

Michael Beevers

Professor Benka-Coker

Hello alums. I hope everyone is staying happy, healthy, and thriving.

My first two years at the College seem to have really flown by. Being immersed in a community of exceptional and motivating students, faculty, and other colleagues has made my transition into teaching and research relatively smooth and enjoyable.

This year will continue to see me teach Environmental Health in the Fall and Integrative Environmental Science in the Spring. As an added bonus, I will be teaching the Senior Seminar class Air Quality



in Our Changing Global Environment in the Fall for the first time. I am eager to delve into the complexities of air quality and pollution, examining them within the framework of our rapidly evolving global environment through the interdisciplinary lenses of our senior students.

My research is also ramping up. I have been able to establish my environmental epidemiology lab with the view of exploring the health and environmental effects of exposure to ambient anthropogenic environmental chemicals and pollutants in susceptible populations. As part of my current short-term research objectives centered on improving quantitative exposure estimates of local air pollutants, I have been fortunate to engage in several projects in Carlisle. The implementation of a biogas digester at the College Farm presents a unique opportunity to evaluate the impact of the digester system on local farm air quality. Across the last 2 summers (2023, 2024), I worked with Alexander Jones '25 to design an exposure assessment project that assessed non-greenhouse gas emissions on the Dickinson College Farm, before and after the implementation of the digester system. This student-faculty research project, sponsored by the College R&D, will culminate with Alex presenting his work at the International Society for Environmental Epidemiology Conference in Chile early this Fall. New this summer, we embarked on another College-funded student-faculty project aimed at providing insight into neighborhood ambient air quality and potential source contributions. The project, Low-Cost Neighborhood Air Quality Assessments in Carlisle, is looking to fill some of the air quality data gaps in the immediate Carlisle community by employing lower-cost air pollution monitors across the borough. It has been exciting to leverage our community partnerships to initiate and implement the low-cost air quality monitoring network across Carlisle's neighborhoods. Lastly, I deployed my other summer research project which focuses on evaluating indoor air quality by comparing the relative impacts of cooking with biogas versus more traditional gas stoves in kitchens. This is being achieved through a CSE-sponsored observational study involving sequential measurements of particulate and gas emissions in Central PA kitchens. Please stay tuned for the exciting results from these projects!

On the home front, my daughter, Ade, and son, Remi, just celebrated their 7th and 4th summer birthdays respectively. They keep me grounded and on my toes at the same time. The newer additions to our



ABOUT



BUT NOT SO NICE

family are two tabby siblings, Sugar and Spice, equal parts troublemakers and charmers.

I look forward to hearing from you, especially now I actually know some of you wonderful alums! Please let me know how you are rocking the world and being amazing!

Wande Benka-Coker



BONDING WITH THE LARGER THAN LIFE SAGUROS - NYE IN ARIZONA

Professor Decker

Greetings alumni! I hope everyone is wonderful and thriving. I have had an excellent time these past few years at Dickinson College. I have had the opportunity to create lasting connections with the faculty, staff, and students in the ENST department and across campus. I have enjoyed continuing to teach Green Infrastructure (ENST 355) and Integrative Environmental Science (ENST 162). In true Allyssa fashion, I have had a blast teaching students about the range of ways we can use plant and soil systems to mitigate some of the environmental challenges urban communities face. Two of my

favorite lab experiences for this course include learning about rain garden assessments and green roof soilplant-water interactions.



Both ENST 355 and ENST 162 participated in a <u>Stevens Initiative Transformative Sustainability</u> <u>Project</u> funded by the Stevens Initiative, which aims to provide participants with essential skills and tools to enhance their local and global contexts into more sustainable communities, starting from the classroom. For this project, both classes collaborated with students at the American University of Sharjah in the United Aram Emirates. Through this project, our students gained specialized knowledge of the UN Sustainable Development Goals, critically approached sustainability problems and constructively debated solutions, and applied their knowledge in individual and group contexts across cultural and geographical boundaries. During Summer '23, I conducted research with Conor Caneday (Class of '25), and this summer, I have continued collaborating with Conor Caneday and Lucy Stott (Class of '27). This summer, we are investigating a host of interactions on the green roof, but we are particularly interested in how the green roof can help to mitigate the Urban Heat Island Effect. We are also interested in better understanding how different green roof substrates retain stormwater and the effect of these different substrates on the survival and growth of our selected green roof plants. We are excited to share our Summer '24 green roof research at <u>CitiesAlive: 20th</u>

<u>Annual Green Roof and Wall Conference</u> this fall in Toronto. We are excited to be sharing the Tome Green Roof research findings with other green roof researchers and professionals at Cities Alive.

The 2024-2025 academic year is quickly approaching, and I am looking forward to seeing familiar faces on campus and to continue to meet new ENST students. This year, I am excited to be teaching First Year Seminar and Green infrastructure in the Fall, along with a new Urban Ecology course and Senior Seminar in the Spring.

Prof. Allyssa Decker



Professor Douglas

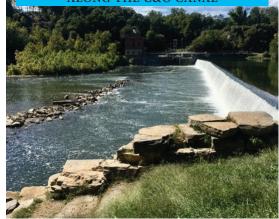
Hello Alums!

This newsletter finds me looking back over my time at Dickinson as I prepare for tenure review this fall. Hard to believe it has already been over 6 years! One of the great things about being here a little bit longer is seeing students' trajectories from our program out into the world. I'm curious where life has taken you and would love to hear your updates, so please reach out!

As for me, I'm glad to be back at the Dickinson College Farm working with enthusiastic students in Agroecology to build a long-term dataset on soil health and biodiversity. It was an exciting full-circle moment when Hannah Seburn ('22) attended one of our farm visits as an NRCS employee. Meanwhile, ES majors have been building their R coding chops in Environmental Data Analysis in Practice. Last spring, we collaborated with Pasa Sustainable Agriculture to analyze factors contributing to nutritional decline in vegetables. Pasa's research director Sarah Isbell ('09) was a crucial connection and an inspiring example of the great work that Dickinson grads are doing in participatory science. You can read all about our findings in our <u>online report</u> (still under construction – so check back for updates!). This summer I'm greatly enjoying preparing a new course called Applied Entomology for the fall - assembling a teaching collection and spending lots of time



OUR MOTLEY CREW OF BIKERS, AND ONE OF MANY GORGEOUS SCENES ALONG THE C&O CANAL



in the Kaufman Pollinator Garden, which has come into its own under the loving care of the Cumberland County Master Gardeners.

On the research side of things, it has been fun to continue agroecological research with fantastic student collaborators. Nhu Truong ('22) developed an honors thesis on the value of cover crop diversity under climate change that was recently accepted for publication at AoB Plants! It was also great to reconnect during sabbatical with several Dickinson grads as we worked on a manuscript on the role of toads in vegetable pest management (spoiler alert: toads eat a lot of beneficial insects...). I've also continued my collaborative work on spatial and temporal patterns of pesticide use and what they mean for pollinating insects. Unfortunately, our findings so far have been quite discouraging (e.g. on the <u>western bumble bee</u>), but I'm hopeful that our research will contribute to the conservation of these beautiful and important creatures. Over the past year or so, I also worked with others to advocate for public pesticide data (<u>background here</u>) – an effort that I'm relieved was <u>ultimately successful</u>.

Outside of work, my husband Bill and I took advantage of the flexibility offered by my sabbatical in fall 2022 to bike 300+ miles across Pennsylvania and MD! We're also getting involved where we can in Carlisle bike advocacy - check out <u>Bikelisle</u> on Instagram if you're curious. Our home garden continues to keep us busy and grounded and well fed. As a transient graduate student, I remember thinking that I would know I had "made it" when I was able to plant fruit trees and bushes, so it was especially exciting to harvest our first figs and blackberries last year. Take care and please keep in touch!

Professor Strock

Hello alums!

I hope this newsletter finds you happy and healthy. I'm writing to you from the airport as my family prepares to move across the pond! I'm about to begin a two-year position as the <u>Director of the Dickinson in England program in Norwich, UK</u>. If any of you studied abroad at the University of East Anglia as a part of this program, please reach out. I would love to hear about what you loved the most about your study abroad experience. I'll be traveling with students for the next two years across the United Kingdom as we explore creative ways the UK has tackled environmental problem solving from the past to the present. If you want to follow our adventures, follow us <u>@dsoninnorwich</u> on Instagram.

I spent the last year on sabbatical, where I worked with state and federal agencies to tackle <u>harmful algal blooms</u> across Pennsylvania lakes and reservoirs and the threat they pose to local communities. Two amazing Dickinson students supported this work: Prerana Patil '24 and Olive Stern '25. Please check out their research theses once they're added to <u>Dickinson Scholar's online portal</u>! The funding for this project also supported a technician position at the College that was filled by the one and only, Olivia Trombley, class of '22. She spent many long days in scummy green lakes collecting samples and ended up protecting the drinking water of many local communities. Now that the project is coming to a close, Olivia has moved on to a position with the <u>Susquehanna River Basin</u> <u>Commission</u>. Check out her article later in this newsletter!

This project was a new one for me and took me away from the far flung reaches of the Arctic (although I'll be sure to return soon!). Over the past two years, Prerana, Olive, Olivia, and I presented to national management agencies, worked with state policy makers, contributed to citizen science monitoring programs, linked reservoir managers with drinking water utilities, and lastly, presented this work to national and international researchers. I'm incredibly proud of the results that came out of this project and look forward to continuing our cutting-edge approach to monitoring this emerging threat to protect both water quality and community safety.

Life is well with the Strock family - I'm holding out hope that my daughters will return from England with adorable accents. I will miss my amazing colleagues and the remarkable students here in the Environmental Studies Department while I'm in England, but I look forward to new challenges and exciting adventures.

I've loved hearing from so many of you as life takes you in so many fun and interesting directions. Please keep in touch.

> All the best, Kristin Strock

MY FIRST TRIP TO SCOTLAND WITH THE STUDENTS STUDYING ABROAD WITH THE DICKINSON IN ENGLAND PROGRAM







Emeriti Faculty

It's been a while since I taught my last class at Dickinson. While I don't exactly miss the grading, I still enjoy reminiscing through the pictures and blogs from our many days in the field, from Luce Semester trips to the Chesapeake Bay, West Virginia, Clarksdale MS, and Louisiana, to Love Canal and Niagara Falls, Chester, PA, and weekly policy field trips meeting individuals behind many of the environmental challenges we face at mining sites, power plants, refineries, CAFOs, landfills, and incinerators, as well grassroots activists in the communities impacted.

In January 2023, Paula and I went to Las Vegas, Nevada to visit my oldest buddy from childhood. We only managed to spend a day on "The Strip" among the massive casinos and noisy tourists before heading out to

several state parks and the incredible Zion National Park, all within a 3-hour drive. Some of the most amazing scenery was under 20 miles from The Strip at Red Rock and Valley of Fire conservation areas--completely deserted as the crowds were back at the casinos glued to their slot machines. With almost five million visitors annually, Zion is the third most visited national park in the US after Great Smokey and just behind the Grand Canyon. Blazingly hot in the summer (from past experience), in the winter it is deserted with the canyon even open to private cars in January.

This past September, Paula and I had a wonderful trip to the wilderness of the Adirondacks (New York State) where I did most of my Masters and part of my Ph.D. research, followed by a few days and nights in the incredibly vibrant and affordable city of Montreal. It was a much-needed break from the political BS and non-stop rubbish on cable TV in the US. Here in this old (for North America) yet vibrant city, we stayed at a wonderful boutique hotel overlooking downtown and the Old City. With English being banned on all outside signs in the province of Quebec, including traffic and restaurants (to appease the separatist Quebecois), we felt the people and region was even more Francophone than in Paris, where you can at least expect a menu in English. It was wonderful to get out of the US--a break we might have to take more often after the election in November.

So, back here in Central PA, the Harrisburg metro area (including Carlisle) was recently named by U.S. News and World Report as the best place to retire in the entire nation! See: (https://realestate.usnews.com/places/rankings/best-places-toretire). Go figure. I think the cost of housing and living in general has a lot to do with it—most likely a reflection of supply and demand. Here's hoping for some snow in 2024-5 so that we cross country skiers can hit the trails in this era of global warming. In the meantime, stay cool, stay young, stay in touch.









Michael Heiman

Hello alums!

I hope this newsletter finds you well and at least partially engaged in activities that bring you joy and satisfaction. I love to hear from you and to watch the Dickinson ES alumni family grow!

I spend most of my time now interacting with my 5 grandchildren – and the rest of the time worrying about them. Alas. But they are well – ranging now in age from 2-13. Three of them are living in Switzerland near Geneva, including the youngest who has two words for everything (French and English) and knows when to use what language with whom. It's kind of mind-boggling. The other two are in western Massachusetts, rapidly becoming teenagers and filling us with new joys and trials. It is a joy to see them grow and a constant challenge to keep up!

My husband, David retired about a month ago – he was serving as a Commissioner for the Workers' Compensation Appeal Board – doing his best to insure injured workers get help. But he is approaching his 80th birthday and finally decided to retire. We will celebrate his 80th at the end of July. Hard to believe.

I'm still working part time for ALLARM. As some of you may know, our long-time Dickinson alum and director of ALLARM, Julie Vastine has recently left ALLARM for a great job with EPA to coordinate their citizen science efforts nationwide. We had a send-off party for her this week! We have just advertised for a new director (check it out if you



DAVID AND CANDIE WITH LITTLEST GRANDCHILD (MOSES) WALKING OUR MAGGIE-DOG. MOSES VISITED US AND ALL HE WANTED TO DO WAS WALK MAGGIE. SO WE DID. MANY TIMES!

are interested!) and are also in the process of hiring a staff scientist (new position). So we are busy reshaping the program for the future.

I love to hear from you – and think fondly of our times together. I have such wonderful memories of those amazing field trips to the Bay – and of course, of the four semesters of the Luce Program that so many of you remember. I was cleaning out my basement the other day (an endless project or so it seems) and came across a box with all 4 of the Luce blogs – hard copies). Well, didn't get much of the basement cleaned, but enjoyed myself immensely!

Be well and do good work and connect when you can. Warmest wishes to all of you.

Candie Wilderman

Welcome Kerri Thauby!

Hello! I wanted to take this opportunity to introduce myself after completing my first year as the Academic Department Coordinator for the Geosciences and Environmental Studies departments. It was a busy, exciting, and successful first year for me, and I look forward to many more with the ENST department. Although I am new to Dickinson, I was born and raised in Carlisle and graduated from Millersville University with a B.A. in International Studies and a minor in Spanish. Since then, I have lived and worked in a variety of U.S. cities including Pittsburgh, Santa Barbara, San Francisco, and Washington, D.C. Most recently, my family of four moved to Vina del Mar, Chile in 2019 and unexpectedly ended up navigating pandemic life from a small cabin in the Chilean countryside. My husband, 2 boys, and I moved to Boiling Springs in 2021 and have added a dog and a cat to our ranks. Outside of Kaufman Hall, I enjoy spending time with my family, tending to my native plant garden, and illustrating local flora, fauna and fungi.



Kerri Thauby

Students Throughout the Year...









CATTLE LOOK ON WITH CURIOSITY AS AGROECOLOGY STUDENTS SAMPLE FOR EARTHWORMS



HANNAH SEBURN ⁶22, A NATURAL RESOURCES SPECIALIST FOR NRCS, NEXT TO FARMER DAVE MCLAUGHIN AT AN AGROECOLOGY FARM VISIT



ALEX JONES ²5 AND DINELA DEDIC ²7 TROUBLESHOOTING AIR MONITORING EQUIPMENT DURING THEIR SUMMER RESEARCH PROJECT



DECEMEBER 2023 SENIOR RECOGNITION CEREMONY



Olivia Trombley's Reflection as a Water Quality Technician

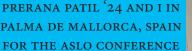


Hi everyone!

Since I graduated two years ago, I've been fortunate to return to the ENST department to work with Professor Strock on her harmful algal bloom research. As the Water Quality Technician in the aquatics lab, I led our sampling efforts at Marsh Creek State Park and Gifford Pinchot State Park, analyzed hundreds of thousands of data points, planned meetings with stakeholders from local and national agencies, and of course, spent a whole lot of time on the water!

Throughout my year and a half working on the project, I was able to work with multiple students and help them in their research ventures within the aquatics lab. I presented my work at the <u>Association for the</u> <u>Studies of Limnology and Oceanogaphy (ALSO) conference</u> in Spain last summer, and my research was shared at the <u>North American Lake Management Society's fall meeting</u> last year. I've honed my technical skills, and I've been exposed to so many great opportunities to grow in my conservation career. Kristin took me on to supplement her research efforts amidst dozens of obligations, including her time as department chair, a year of sabbatical, and an upcoming move overseas. As much as I loved taking the reins on many aspects of the project, I can't begin to count the ways Kristin has supported me as a young professional in our field. I've gained so much knowledge about navigating jobs and grad school applications, and I'm grateful to be leaving the department equipped with so many new skills.

As I write this update, I'm sitting in my office in Kaufman for the last time. Our project has come to a close, and I am starting a new role in Harrisburg with the <u>Susquehanna River Basin Commission</u>! I'll be supporting their Monitoring & Protection division in all things fieldwork - stream surveys, lake sampling, riparian habitat assessment, and more. It's been such a pleasure to return to Dickinson as a staff member, and I'll miss seeing everyone around the building and chatting each day. I'm staying put in Carlisle for the time being, so I hope to see some of you around town! I have all of you to thank for getting me where I am today.





Olivia Trombley '22



SAMPLING WITH ACADEMIC TECH LIZ BURKE!

Interview with Charlotte Kratovil-Levelle '24 about her Honors Research on Club Moss



why clubmoss? What started your curiosity on this organism?

My fascination with clubmoss began with Professor Loeffler's Plant Systematics course and a visit to a patch of Hickey's tree clubmoss (Dendrolycopodium hickeyi) last spring. Clubmosses are small, perennial, evergreen plants that form lovely patches of varying densities that resemble miniature forests. First evolving some 400 to 430 million years ago, these small plants were once larger than many of our trees today and were important components of ancient forests. Unfortunately, as I discovered while trying to learn more about these fascinating plants, clubmosses are understudied and underappreciated. Very little research has been done about clubmoss ecology relative to other plants and even less has been done about their interactions with other organisms in their ecosystems. The nail on the coffin for me was an excerpt from a 2021 biology textbook that states, "although clubmosses are common in northern hardwood forests, they are not particularly important." As someone who wholeheartedly believes that every organism plays an important role in their ecosystem, this assertion did not sit right with me. So, Professor Loeffler and I decided we would investigate the ecological role of clubmosses here in South-central Pennsylvania. Before I knew it, I had fallen into the rabbit hole of becoming a full-blown clubmoss enthusiast.

what were the methods for your research?



While hiking last fall, I observed spiders in webs strung between clubmosses: a plant-animal interaction! We wondered if spiders were drawn to clubmosses and if we would find more of them inside patches compared to adjacent areas with no clubmoss. Based on our observations, we hypothesized that clubmoss patches may provide important habitat for spiders and other terrestrial invertebrates. To test this hypothesis, we set out to three sites in Cumberland and Perry Counties. Between September 28 and October 27, 2023, we observed four clubmoss species: flat-branched tree clubmoss (Dendrolycopodium obscurum), Hickey's tree clubmoss (Dendrolycopodium hickeyi), running cedar (Diphasiastrum digitatum), and shining clubmoss (Huperzia lucidula). We used one sq. ft. quadrats to representatively sample invertebrates inside and directly outside of 20 clubmoss patches. We recorded a total of 198 invertebrates within all 120 quadrats, approximately 60% of

which were spiders. I analyzed these data, looking specifically at spiders, to determine whether or not we saw more spiders inside the patches compared to outside of them. When I returned to campus in the spring, we continued to survey for clubmoss to assess their distribution and to look for evidence to provide insight into why spiders may be building webs in clubmoss patches.

what did you learn?

There were about three times more spiders inside clubmoss patches compared to directly outside of them! These findings support our hypothesis and push back against the assertion that clubmosses are not important (clearly the spiders like them). Why spiders are drawn to clubmoss remains unclear, but we speculate it has to do with the structural complexity and microclimate conditions provided by patches. In addition to spiders, we saw salamanders, a wood frog, and numerous types of invertebrates, indicating that clubmoss patches may provide important habitat for other species as well. To the best of our knowledge, no studies have investigated the relationship between invertebrates and clubmoss, and no one has looked at spiders. Thus, our findings provide important, novel insight into the roles that clubmoss play in our contemporary forests.



why should everyone join the club (moss)?

Clubmosses are cool! They have several fascinating characteristics that make them stand out from other plants. Perhaps most notably, they are the oldest still-living group of vascular plants, meaning that they have specialized tissue to transport water and nutrients. You can look at clubmosses growing today and think about their ancestors growing 400 million years ago. Additionally, they are incredibly slow growing, with some species taking twenty years to develop from a spore to a mature plant (that's almost as old as me!). A single clubmoss patch can grow for decades, and some researchers have suggested they may grow for centuries. Clubmosses are also high in alkaloids, chemicals that make them unpalatable to herbivores like deer and that may have important medical applications for conditions such as neurodegenerative disorders. Finally, as evergreen plants, clubmosses provide a splash of green in a winter landscape and make our forests that much more lovely. In summary, clubmosses deserve more research attention and more appreciation. Next time you're out in the woods, keep your eyes out for these remarkable plants. Look closely and you may just find some small creatures living among these beautiful miniature forests.



Charlotte Kratovil-Levelle '24



ALLARM FULL TIME STAFF CELEBRATE A SUCCESSFUL RESTORATION MONITORING FIELD EXCURSION

ALLARM UPDATE

Hello Environmental Science and Studies family! How exciting it is to be able to connect with you all once more as it has been a busy couple of years since we last updated you. 2023 and 2024 have brought on a plethora of travel, new experiences, connections with new and old partners, and so much more.

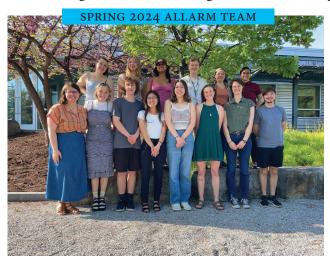
2023 was a year of conferences (7 in fact!) for ALLARM and involved both travel across the nation from Arizona to Virginia, and one hosted here on Dickinson's campus. The sessions we presented gave an opportunity to spotlight ALLARM's data orientation and interpretation process using Stream Team (our volunteer monitoring program) as a case study. ALLARM was also thrilled to host the <u>Mid-Atlantic Volunteer</u> <u>Monitoring Conference (MAVMC)</u> funded by the PA Department of Environmental Protection with section 319 funds from the EPA. It was the first time this conference has been held since 2015. Over the course of two days and four concurrent sessions, ALLARM hosted 100 people (more than half were volunteer scientists) to discuss a range of water quality topics, engage in hands-on learning, and feature presentations by volunteer monitors, career scientists, and organizations in the region. One of the highlights of this conference was a Volunteer Spotlight, a reception that showcased volunteer scientist's DIY monitoring inventions and data displays. This conference was an amazing experience to host, and gave some of our Summer student watershed coordinators a chance to network with others in the field and an opportunity to help direct and photograph the attendees throughout the conference's events and sessions.

ALLARM has also continued its work with the <u>Chesapeake Monitoring Cooperative (CMC)</u>, a collaborative made up of the Chesapeake Bay Program, Alliance for Chesapeake Bay, Izaak Walton League, University of Maryland, and VIMS to support data collection and sharing efforts of communities in the Chesapeake Bay Watershed. Now half-way through the 6-year grant, the CMC crew is re-assessing goals and priorities to make the next few years as successful as possible which includes identification of data gaps in the watershed and considerations to make our monitoring programs and resources more accessible and inclusive to diverse audiences. As a result of this process of reassessing goals and priorities, ALLARM has reengaged existing partnerships in New York and will be collaborating with the <u>Susquehanna River Basin Commission</u>, Southern Tier 8, and Southern Tier Central in a new partnership with the goal of increasing water quality data collection and supporting community scientists monitoring in New York.

While we updated you all on the start of Stream Team, our volunteer water quality monitoring program, in the 2022 edition, we're now ready to celebrate 5 years of monitoring! Throughout this time, we are continuing to onboard new monitoring teams, start new county cohorts, and host additional trainings and experiences, all the while supporting the 110+ existing volunteers throughout the watershed. Our seasoned volunteers are now going through their second state-wide round of data interpretation, and we are thrilled to see what new discoveries and stories there are since our last interpretation process. Student watershed coordinators have been engaged throughout the entire process, from trainings to building connections with Stream Team monitors to creating tools for data interpretation. Additionally, we are elated to celebrate both

our new and seasoned volunteers in anniversary festivities later this year.

The Consortium for Scientific Assistance to Watersheds (C-SAW) has continued to pick up steam post COVID. ALLARM is seeing an uptick in assistance requests as well as volunteers engaging in watershed activities. In 2022-2023 alone, ALLARM became a service provider for 3 additional partners ranging from Warren County to Susquehanna County. Additionally, ALLARM provided Quality Assurance/Quality Control testing for 20 partner groups resulting in over 2,400 tests performed, the majority of which were analyzed by our phenomenal student watershed coordinators! In an effort to ensure that these data belonging to our partners are accessible, especially those who have been monitoring for decades, much work has been put into organizing and uploading these data, as well as updating standard operating procedures. This will help foster data sharing and use, something that ALLARM is going to be expanding on in the coming years.



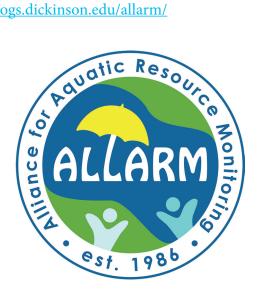


ORMER DIRECTOR JULES VASTINE CHECKS OUT INVENTION BY VOLUNTEER JEFF GLEIM

In our last update, we introduced one of our newest monitoring projects, the Community-Based Restoration Monitoring Protocol. Created to assess the effectiveness of in-stream and stream-bank restoration projects, we have spent these last couple years with our CMC partners and <u>Stroud Water Research Center</u> to take the protocol into the field. With a couple of pilot sites now established, we are excited to track (and are already seeing!) changes along the restored stream reaches. As we move towards 2025, we look forward to transitioning from the pilot phase to the roll-out phase, beginning volunteer trainings, and expanding the protocol's reach to other locations throughout the Chesapeake Bay region.

After over 20 years with ALLARM, this year we are also saying goodbye to ALLARM's director, Julie (Jules) Vastine. While we are sad to see them go, we are so excited for them as they will be returning to the U.S. Environmental Protection Agency as their first crossagency participatory science coordinator. We are wishing them all the best in this new position.

If you would like to keep up to date with ALLARM's adventures and achievements, please follow us on social media <u>@allarmwater</u> and check out our blog <u>https://blogs.dickinson.edu/allarm/</u>



Center for Sustainability Education Update

The Center for Sustainability Education (CSE) continues to provide opportunities for students, faculty, staff, alumni, and community members to join together to participate in sustainability initiatives both on and off campus. Our programs and projects aim to advance Dickinson's college-wide sustainability goals while providing learning and community-building for those involved. Our living laboratories connect social, economic, and environmental problems and solutions through direct experiences. Here are some of our recent highlights made possible through the work of our student interns. Contact <u>sustainability@dickinson.</u> edu for more information on any of these programs or to learn how you can help.

Free xChange

The Free xChange aims to 1) reduce waste and promote reuse, 2) provide a safe, equitable and accessible space for the exchange of clothing, accessories and textbooks to every Dickinsonian, and 3) create awareness of the social, economic, and environmental impacts of consumerism. This inclusive space (open 24/7), in the lower level of the HUB, allows visitors to find what they need to express who they are or who they want to be. This program relies on donations, which are accepted from anyone! The waste minimization intern at CSE organizes events, manages volunteers, and promotes donations/ drives.



The Hive

<u>The Hive</u>, Dickinson's beekeeping cooperative, brings together students, faculty, staff, alumni, families, and community members to support the work of beekeeping, promoting and managing pollinator gardens, harvesting honey, and creating value-added products such as lip balms, lotions, soaps, and candles. We have had 1-3 active beehives on campus behind Rector since 2016 with the goals of learning from each other, advocating for pollinator-friendly policies, building and improving native bee habitats on and off campus, and



ng and improving native bee habitats on and off campus, and participating in educational programs on the significance of pollinators and the challenges facing them.

Dickinson College has become the 56th highereducation institution in the nation—and the third in Pennsylvania—to be certified as an affiliate of the Bee Campus USA program. The certification recognizes the college's numerous efforts to improve habitats for bees and other pollinators through such initiatives as The Hive. The Bee Campus USA program endorses a set of commitments that challenge higher-education institutions to create sustainable habitats for pollinators. We have a listserve to keep you informed! Let us know you want to join by contacting thehive@dickinson.edu.

The Handlebar

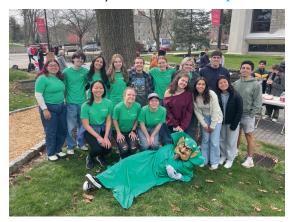
The Handlebar is our on-campus teaching bicycle cooperative and has kept its doors open since 2011! CSE's biking intern leads a team of student and staff volunteers with the hopes of increasing bicycle use, repair services, and bike-related knowledge on campus. The Handlebar promotes equitable access, affordability, and a strong sense of community while advancing life skills and promoting sustainable transportation. Our reuse mindset and the Green Bikes Program support Dickinson's sustainability initiatives by improving sustainable transportation options and infrastructure on campus. The Handlebar is always looking for donations of bikes, parts, or accessories as we aim to keep our expenses low while



providing as much as we can to the campus and community. Our doors are open when we are, and hours are determined by volunteer availability. Alums are welcome! Reach out to <u>biking@dickinson.edu</u> for more information or to be added to our list.

The EcoReps

We are working to create a network of leaders who work to empower others to make sustainable changes in their lives and in their communities through peer education, programming, and outreach. Open to students, faculty, and staff, <u>Eco-Reps</u> serve as peer educators for sustainability in a community of their choice



(residential space, team, club, office, department organization etc.). Providing all campus communities access to the Eco-Reps program strengthens the sustainability knowledge on campus and creates a forum for students, faculty, and staff to work together to create action for social justice, economic opportunity, and environmental sustainability. The Eco-Reps coordinate the Campus Sustainability Expo, an interactive event celebrating our campus and community partnerships in the progress and future of sustainability, and are always looking to network and learn from alumni.

Dickinson

CENTER FOR SUSTAINABILITY EDUCATION

Dickinson College Farm Update

There is rarely a dull moment at the <u>Dickinson College Farm</u>! As we move into peak farming season, we are deeply grateful to the students, apprentices, and farm staff who help ensure that our crops are tended, livestock cared for, and morale remains high. A big theme at the College Farm over the last year has been "waste to energy." Matt Steiman, Assistant Director of the College Farm and Energy Project Manager has been hard

at work <u>designing</u>, <u>fundraising</u>, <u>and building a biogas</u> <u>digestor that will convert food and manure waste into</u> <u>electricity</u>. The College Farm is collaborating with the neighboring dairy, Triple L Farms and their 150 cows, along with existing and new community partners to convert "waste" into enough renewable energy to power the farm and an additional 20-30 homes. This project is the first of its kind in Pennsylvania and will serve as a demonstration site for area farmers to learn about waste management alternatives that divert waste from waterways and landfills and convert it to energy. The biogas project was designed as an educational tool for the community and has already resulted in substantial interest. This biogas project team has conducted many



tours for a variety of audiences including Dickinson students, K-12 students, farmers, ag professionals, and visiting foreign dignitaries. The pace of outreach activity will continue to increase once the system is operational and construction has been completed. Last October, <u>the Dickinson biogas project was honored</u> with a national award from Energy Vision in New York City, providing substantial media exposure and name recognition for the College in the renewable energy field. Dickinson students continue to work with the biogas project as student educators, as well as student researchers. This summer, Wande Benka-Coker is leading student-faculty research on air quality in and around biogas production and usage. Inspired by the potential of biogas, local theater company, <u>Valley Traction</u> wrote and directed a biogas musical called Life Waste. A workshop performance took place at the farm in early June with more performances scheduled for early fall.

Aside from the biogas project, Alex Smith ('10), the farm's Vegetable Production Manager, along with Kelsey Horowitz ('18), our Crew Leader, are taking charge in vegetable production and management. The farm is thrilled to have two Dickinson (and farm!) alumni leading the way at the College Farm. With help from six



Dickinson summer students, four apprentices, and wonderful volunteers looking to get their hands dirty, the Vegetable Production Team is managing eight acres of certified organic produce. Each week, the farm supplies 150 families with freshly harvested veggies through our Campus Supported Agriculture (CSA) program. Can you believe that our CSA program has been running for 20 years?!? In addition to supplying crops to the CSA, the College Farm remains active as a vendor at <u>Farmers on the</u> <u>Square (FOTS)</u>. New this year, we are no longer

selling fresh-baked wood-fired pizzas at market. Change is good and our stand at FOTS is now overflowing with fresh produce, as well as fresh ferments like kimchi and krauts made with ingredients grown at the farm. This is a new product venture for the College Farm and so far, so good!

As you may have already heard, <u>Farm Works</u>, the campus-based farm store, continues to thrive and serve the needs of the Dickinson campus community through products made with farm ingredients. This

year, the farm's Packing House Coordinator, Cheri Getty, turned farm vegetables into canned goods like pickled beets, marinara, jams, and more. In fact, she canned close to 1000 jars of product that was sold at Farm Works! With new crops coming in from the fields, Cheri is teamming up with Joe Rosas, the Farm Works Kitchen Manager, to increase production and expand to new products. While not helping with canning, Joe is developing new recipes for the start of the fall semester. Students are integral to the overall operations of Farm Works, both helping with food prep in our kitchen and



managing the store. We look forward to showcasing Joe's culinary creativity through the soups and salads made at Farm Works. Now that students are allowed to use meal plan points for purchases at Farm Works, we hope that you will swing by!

The farm continues to serve as a resource for academic interests. This spring alone, the College Farm



assisted 18 courses with meeting academic goals by hosting classes for labs or walking lectures. Departments that engage the College Farm in this capacity include Theater and Dance, Music, Studio Arts, Sociology, Biology, Environmental Studies, Religion, Mosaics, and language departments. Building longstanding relationships with faculty and supporting their course and research needs is a big goal of the College Farm. As a living laboratory, the College Farm offers a wide range of learning opportunities, and it is always wonderful to collaborate with faculty and students. In fact, faculty like Professor Douglas and Professor Benka-Coker have been instrumental at designing research and coursework that helps us learn more about the farm ecosystem, from the soil upwards. By integrating farm-based research questions into their work, the farm gains valuable insight that helps to inform management decisions and set long-term goals. The connection between course work and farm work is truly unique and distinctive. Everyone gains meaningful experiences through the kind of active learning that can be realized at the College Farm.



Dickinson

COLLEGE FARM

Alumni Updates

1995

Tiffany Lorenz (Smith)

This year marks my 29th year with Merck & Co., Inc. in West Point, PA. It's been a fantastic experience working on both the commercial and research sides of the business. I've been supporting clinical supplies since 2001 in various capacities from quality auditing to leading clinical packaging operations to a global role enabling the clinical supplies to meet future pipeline needs. On a personal level, I'm opening a non-profit, donation-based yoga studio in my town to provide accessible yoga to the community. Saha Yoga will be opening this summer in Harleysville, PA! Additionally, my husband Darryl and I have five daughters between us, two golden retrievers, and a grand-cat. It's a busy household!

1998

Elizabeth Perera (Martin)

Greetings! I'm now working for the Biden Administration with the US Department of Energy-Loan Programs Office! We are all working to implement the historic climate bill - the Inflation Reduction Act. In particular, I work with the Environmental and Community, Jobs and Justice teams where I get to work at the intersection of deploying innovative climate technologies and helping to build a more equitable and just clean energy economy. I live in Bethesda, MD with my husband, Alex Perera, energy director with the World Resources Institute and our two kids, Lia (15), Aiden (13) and dog Cody! I would love to hear from all my dear friends in Environmental Studies as well as the Tree House! Please reach out!

Caroline Whitehead

My husband, daughter (9) and dog (5?) are currently living outside of DC during my husband's latest rotation in the Navy. We may be living the military life for another 3 to 6 years before he retires. I've moved into a new role at my company Dewberry where I'm responsible for understanding external factors that impact the engineering and architecture design work we do. The 2021 Infrastructure Investment and Jobs Act and the 2022 Inflation Reduction Act have heavily impacted how we integrate resiliency and sustainability into projects. It's been an exciting time to see these developments in the built environment.



2002

Angela Wallis

I've been a proud public employee in the city of Seattle for 7 years. Seattle's Race & Social Justice Initiative (and law) has allowed me to be trained in antiracism, and I'm now a leader in equity and belonging work within Seattle Public Utilities. My work helps undue structural and institutional racism for both employees and the customers we serve.





Catherine Spahr

I love how my professional life has evolved since graduating from Dickinson! The first ever GIS class propelled me to pursue a Master's in Geography and Planning with the focus on GIS. While working through that, I was introduced to Planning, which led me to becoming a certified planner. I have been able to marry all my passions into one field that allows me to pursue working on creating a sustainable future! As the project manager for the Delaware County Vision Zero Plan, Vision Zero Delco, the goal is to ensure ALL road users are safe on our streets. People will not get out of their cars if they do not feel safe, so a foundation of safety is key to a sustainable transportation future. GIS is integral to planning this future; allowing us to not just analyze the data but also tell a story! I never would have dreamed this is where I would be, but I love it!



2004

Laura Walters

I'm living in Bath, Maine enjoying the beauty of this area! I am a co-founder at a non-profit, Remote Energy, where we partner with organizations and schools worldwide to help them set up solar energy training programs and support the development of local trainers. We work with underrepresented populations in the solar industry to help build a gender-balanced, diverse, and inclusive solar industry. I am also on my city's Climate Action Commission, working to advise, educate, and push our city towards reducing out GHG emissions and adapting to climate change. In my free time, I love gardening, hiking, and getting on the water.



Robert Berns

My wife and I were blessed to welcome our baby boy Liam in September of 2023! In my professional life, I am working as an Environmental Specialist for the County of Union, New Jersey Department of Parks and Recreation.



Emma Bolin

Since the last newsletter, I became the Director of Planning and Community Development for the City of Port Townsend overseeing construction permitting and long range planning teams. We focus on how to leverage City comprehensive and functional plans, zoning, and meaningful community engagement to promote compact urban development. We share our community's hope that we will strategically resolve climate emissions, prime economic development, increase housing density and affordability as well as increase active transportation and thereby improve community health. I am leading an Evans Vista Master Plan on city owned

property to construct over 300 rental units of mixed income, mixed use property on 7 acres with an minimum set aside for target affordability thresholds and will publish a request for development proposals later this year. I also graduated from the Northwest Women's Leadership Academy in 2023, which is a Washington City Manager's Association program to accelerate more women and nonbinary people into executive level municipal leadership positions. Please reach out if you're in the WA area and are interested in applying to the academy.



Cristina Cardona

I was accepted to the STEMSEAS program in November of 2023 and now the School of Rock in May of 2024. These are NSF funded programs for faculty and students.



Danielle Cioce Ferguson

Our family has grown beyond the replacement rate, as we welcomed triplets last year. 3 babies plus their older brother is as bonkers as you can imagine, but there is so much joy. Still into water quality and working to support MS4s.



Atandi Anyona

Hi all. I am currently enjoying a tranquil trajectory in my professional career; doing communications in an organization dealing with wildlife conservation. My passion has for a long time been around wildlife and getting a chance to creatively communicate our conservation work has been quite a fulfilling phase. Looking forward to link up with anyone in the conservation or communication space.



Kjellman Carl-Magnus

After getting my masters degree and a four-year stint in finance, I work as a policy adviser for the Swedish Energy Agency, putting elements of the Paris Agreement related to international cooperation into practice.

Casey Stock

I am serving as the committee chair for the 2024 B:CIVIC ESG & CSR Summit in Denver this November 13-14. Would love to see some alumni attend. I am also resuming my role as Vice Chair on the SAME Cafe Board of Directors in Denver; SAME Cafe's focus is to provide healthy food for all. Please message me if you ever want to meet up over a meal.



2011

Katie Panek

I am a Principle Associate for the Chilean Patagonia Project of the Pew Charitable Trust, where I work to enhance the protection of Patagonia through the country's park and reserve system, while also promoting public-private partnerships for new conservation efforts. I live in Punta Arenas, Chile with my husband (Antonio), one-year-old son (Joseph), and very energetic bordie collie (Gunni). My husband and I also run the Hostal Boutique Puerta Roja, in Punta Arenas where we welcome travelers (and hopefully some future Dickinson alums) from around the world.

Rebecca Yahiel

Hello! Since graduating in 2011, I've been supporting the US Army Corps of Engineers in a couple of their environmental remediation missions in the DMV. Until 2020, I was involved in community outreach/risk communication, supporting a team remediate remaining WWI munitions debris and contaminated soil from a historic chemical warfare testing facility (and now modern neighborhood) near American University in NW Washington D.C. (Spring Valley FUDS). In 2020, my husband and I moved to northern Virginia, where I am a project manager supporting a team decommissioning and dismantling the first nuclear power reactor to provide electricity to a commercial power grid in the U.S. from 1957-1973 (SM-1 at Fort Belvoir - PS we have some cool time-lapse videos on YouTube of our work to date!). Outside of work, I'm traveling and visiting family all over the country/world, taking long walks with our dog, and adding books to my endless TBR list. Also, my connection to south-central PA endures via time spent helping a couple PA farmers sell their delicious goods (cheese & veggies) at a Sunday farmer's markets in D.C.



Erikson Will

Recently joined the University of Wisconsin Madison's Office of Sustainability, housed in the Nelson Institute for Environmental Studies, managing the Corporate Sustainability Internship Program!

Anna Ramthun

I live in Corvallis, OR with my partner, Darin, step daughter Jolie, and two dogs. I work for the Confederated Tribes of Grand Ronde and am particularly focused on habitat restoration and vegetation management. In my free time, I enjoy trail running, triathlons, and making pottery.



Christine Burns

It's hard to believe it's been 10 years since I graduated from Dickinson. Since then, I've worked up and down the east coast before finally setting down some roots in Edgewater, MD with my husband, Elias, and my dog, Magnus. I work for the Maryland Department of Natural Resources as a **Coastal Planner supporting** the Chesapeake Bay National Estuarine Research Reserve. In my role, I develop science-based training programs focused on coastal hazards, climate resilience, and integrated coastal management.

Anne Klein (Dyroff)

Welcomed a daughter Lyla this past November



2015

Amber McGarvey

I am a Planner at the Portland, Oregon office of Parametrix, an employee owned engineering and environmental services consulting firm. I mainly work on the Interstate Bridge Replacement program which is replacing the aging bridge between Oregon and Washington with a seismically resilient, transit friendly version.

Lexie Raczka

In February of 2023, I launched Choose to Reuse at Boston University, a first-of-it's-kind reusable container program for retail dining on college campuses. To date, we have prevented over 300,000 disposable containers from being used! I've also had the opportunity to speak with colleges and universities across the US and Canada, providing guidance on how they can implement similar programs.



Jacqueline Schlotterbeck (Goodwin)

After five years of living in Nashville, my husband (Isaac Schlotterbeck '16) and I moved to Portland, Maine in May. I'm thrilled to be back in New England, and I started a new job as a Project Manager at a digital marketing firm and B Corporation, Energy Circle. EC focuses on lead generation for contractors in the building performance industry, from solar to insulation. We're in the process of fixing up our first home and enjoying a gorgeous Maine summer with our dog, Piper Mae.

Mason Hepner

Bought a house closer to work this spring in Lebanon. Spent a lot of time working on the creation of a Sentinel Landscape Program for PA which was announced in May 2024. Working with local conservation organizations and landowners to protect and conserve land around FTIG through our ACUB program. Completing environmental documentation for larger future military construction projects for the future.

Claire Jordy

The past two years, I have been working on my dual masters in Community & Regional Planning and Water Resources at the University of New Mexico. I am particularly interested in federal, state, and local policies related to flooding and stormwater management in the era of climate change. I will hopefully be graduating this December!

Caroline Kanaskie

Hi all! I have been living in Dover, New Hampshire since graduating from Dickinson. I moved up here to work on my master's in Natural Resources, and I decided to stay for my PhD in Earth & Environmental Science (which, I am on track to complete by May 2025). My research focuses on southern pine beetle community ecology as this tree-killing beetle expands its range due to climate change. Through my work, I have fallen in love with the pine barrens ecosystem, and my training as a scientist has made me a better observer of my surroundings-from the mountains to the seacoast and in between. I plan to stay in academia and hope to teach and provide research opportunities to undergrads, since my path was so shaped by the professors I had (especially at Dickinson).



Caly McCarthy

I continue to live in Washington, DC and to be mesmerized by all of the flora and fauna in my neighborhood (shout out to the cardinals and the fireflies that are presently giving me life!). By day I share my energy with Fairtrade America as their Marketing & Communications Coordinator. This role allows me to have my hand in a number of neat projects pertaining to trade justice, and one of my primary responsibilities is being the human behind our social media (Give us a follow! @FairtradeMarkUS). I love that the role is so creative and the relevant topics are as varied (and interconnected!) as climate change, colonialism, gender equality, botany, and ecology.



Natalie McNeill

While I may not be in the environmental field anymore, I treasure my Dickinson education and time in Carlisle. I would not have developed the same passion for helping people in my community had I not been involved with Dickinson's ENST department and ALLARM.



Olivia Termini

After spending the last few years in Washington, D.C. at Deloitte doing sustainability and equity consulting, I am heading to Duke University's Fuqua School of Business for my MBA. I was also named a Forté fellow for my work empowering women in business. While in D.C., I coached 3rd/ 4th and 5th/6th grade girls soccer, sat on the nonprofit Board Suited for Change, and published an article based off my Environmental Studies Honors thesis on climate change, trust, and governance.



Xinyi Wu

I am now a senior associate at PwC CHN and work for the ESG Disclosure & Consulting team. If you are ever interested in the ESG topic, please feel free to (re) connect!



Abby Marich

I've been having a lot of fun in Colorado working for a nonprofit farm, learning about community farming, getting involved with the agricultural community here, and taking in all of Boulder's natural beauty and open space!

2021

Espoir DelMain

It's my second season working on an organic vegetable farm and kayak guiding on the Mississiippi River down here in the heart of the Driftless region in Wabasha MN. I'm always open to reconnecting and/or hosting folks if you ever pass through the region and need a place to stay. I'm continuing to create dance work and public programming that is environmentally responsive and engaged with the community. In the winter, I substitute taught, worked as a baker, and managed a sauna rental. I'm also working and leading youth wilderness trips by canoe and short experiential education programs internationally; last year we went to Mexico and Canada. I'm hoping to travel more in the off season this winter and scheming for more dance projects, bike trips, and community building.



Haley Salmon

This year, I expanded my sustainable retail business, Just Honest at justhonestliving.com, by introducing my own full line of handmade natural products in recycled and compostable packaging. Just Honest also started selling wholesale this year, meaning my products are now not only available nationwide with carbon-neutral and plasticfree shipping, but also on shelves across the country in at least 14 different states. I also started an intern program this year and welcomed 3 students from different universities to help share our mission in exchange for college credit. Just Honest was also honored by Us Weekly, being named their Best Eco-Friendly, Natural Beauty Subscription Box. Thank you Dickinson for fostering this sustainable spirit, and we can't wait to see what's in store for us next year!



Sara Soba

After graduating at Dickinson, I moved to the Arlington, VA area to join the Enterprise Knowledge team as a Technical Analyst. After spending the last 3 years working in consulting, I've decided to return to academia to chase down a dream I had back in 2020. This summer I will be attending the University of Virginia to pursue a masters of Landscape Architecture! My dream is to apply my consulting skills to the field of landscape architecture to help design inclusive public spaces that address both environmental and social justice issues. I would like to give a special thank you to Professor Maggie Douglas, Professor Scott Boback, and Jennifer Clough (Dickinson Career Center) for their support in the graduate school application process!