

Environmental Science and Sustainability Department Newsletter

September 2021

Edited by: Molly Tarvin

Looking for New Writers!

The ESS Newsletter is looking for new writers to help bring the department's updates to print. ESS majors with strong writing skills or a history in journalism are encouraged to apply. Please email Molly Tarvin at tarvinm@allegheny.edu

Beth Choate Takes the Helm as Department Chair



Picture Courtesy of Beth Choate

For as long as any current student can remember, the environmental science and sustainability department has been led by the expertise of Professor Eric Pallant, yet this fall semester marks a shift in power to an equally familiar face within Carr Hall. Professor Beth Choate has been named chair of the ESS department, having begun the position this summer after the transition was announced this past spring. Eric Pallant has been the chair of Allegheny's ESS department twice within his career, extending a usually four year position to nine years. Now, with Beth Choate having gained tenure in 2019, a brief sabbatical was the only thing that stood in her way to take the helm of the most influential department on Allegheny's campus.

(Continued on the next page)



Beth Choate: Continued

Beth Choate joined Allegheny's faculty in August 2012, back when the department was primarily natural science based. She served with a preliminary focus in sustainable agriculture, having spent her PhD years in South Dakota with farmers and friendly insects, and has since changed her scope of interest to include other passions, such as entomology and pedagogy, the study of teaching. In nearly ten years, Choate has watched the department finish its shift from a primarily natural science based program to something increasingly interdisciplinary, inviting professors and ideas from the social sciences and even the humanities into the classrooms to allow students to explore each of their interests in equal weights. Since then, the department has grown in size and in expertise, adopting what Choate describes as a 'family atmosphere'. She insists that it is a combination of faculty and students that make the ESS department such a welcoming community, quoting "there is never a day when I don't want to go to work."

As chair, Beth has sacrificed time in the classroom for more time spent with ESS faculty, other department heads, and campus administrators, now participating in meetings and going on the hunt for requested information. She assures that the role is rewarding in its own sense, as she gets to learn alongside her colleagues as they question her about the department's structure, the school's inner workings, and the tenure and promotion process.

Similarly, Choate is able to follow more closely along with the various endeavors of the ESS faculty, whether that be in research, grant proposals, or community work.

Beth Choate shows a contagious enthusiasm for all that she does, and being the department chair will certainly present her with opportunities to display her expertise and optimism throughout the department and the college as a whole. From all of us in the newsletter crew, welcome to the top, Beth!

Beth's Side Job: The Science of Sustainable Students

As with most professors, Beth Choate is working to teach the younger generations and learn a bit herself. Choate's current research involves analyzing a 2019 survey to gauge Allegheny student's understanding and recognition of the college's sustainability efforts.

The next steps are to reach out to alumni on the subject, as well as think deeply about how to spread sustainability messages effectively to everyone engaged in the Allegheny community.

Mick Demi: Going With The Flow

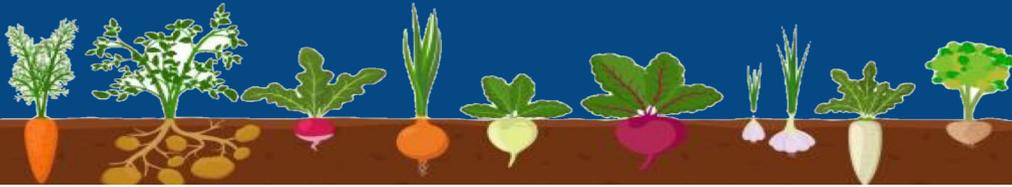


A warm welcome to Professor Mick Demi, who just joined the department this semester! Mick just moved to Meadville in early August, so he's still adjusting to Meadville, but he grew up about three hours away in Lewistown, PA! His love of the outdoors has inspired an impressive academic career and his research since the very beginning, when Mick did his undergrad at Shippensburg University. From there, Mick got his masters from the University of Maine (along with Professor Choate!) studying migratory fish and their role in freshwater ecosystems. He went on to do his PhD work in North Carolina, with the University of Alabama, and then lived in Boulder and taught at nearby universities for a few years. Mick even spent a few months living in Reykjavik, Iceland studying the effects of geothermal influences on stream temperature and ecology, where adjacent streams can vary in temperature by as much as 20° C. Most recently, he started a post-doctoral position in 2018 at North Carolina State University, spending summers in Colorado at the Rocky Mountain Biological Laboratory. After this summer, Mick packed his bags in Colorado and arrived at Allegheny to start teaching.

His main research at NC State is focused on the impacts of climate change on streams in the mountainous western U.S. "What we are really interested in is how the loss of mountain snowpack resulting from climate change is going to influence river communities and food webs in western rivers," Mick said, especially influences stemming from temperature increases.

"The rivers tend to be a lot warmer and get warmer a lot earlier in years when there is less snow." Since mountain streams are experiencing early impacts from climate change, Mick and his team are thinking of these mountain rivers as "sentinel systems" that can forecast the effects of climate change at lower elevations. To demonstrate these impacts of climate change to the public in a tangible way, Mick has leveraged the importance of stream health for sport fisheries. "We hope by documenting the effects of the changing climate, through this type of ecological research... that it motivates some action on climate mitigation," Mick said. He added, "a lot of times the science isn't visible to people, so they're not really seeing it... We have a really big gap in this country, in communicating the actual reality of the situation to people and making them understand that reality, and motivating them to take action on it – that's always a challenge in climate research." Challenging though it may be, Mick is pressing forward.

The opening for a professorship here at Allegheny was an opportunity that Mick couldn't pass up. "I'm super excited to be here," Mick said enthusiastically, reflecting on his recent move from Colorado. He got to work with a lot of Allegheny folks there, and he is excited to work with them here and help students gain access to research opportunities. "One of the things I really hope to accomplish here is to have the summer research I do provide opportunities for students... to have the kinds of experiences that graduate school and doing research gave to me... Those types of experiences matter." Mick's passions for the environment and helping students are values-driven, and his cheerful, humble and knowledgeable presence is quickly making a positive impact in the ESS department.



The Carrden's Latest Features And Renovations

Ever since the Carrden's construction in 2013, the Allegheny garden has undergone constant expansions, additions, and changes for the sake of both convenience and accessibility for new and old workers at the Carrden. The garden is worked on year-round by Kerstin Ams, who has been the manager of the Carrden for its eight-year existence, and it should come as no surprise that the summer of 2021 was as busy a time as ever for updating and renovating the garden. Since previously inconvenient quarantine restrictions were gradually dropped through June and July, the summer student workers, including myself, were able to work on planting and harvesting crops while still having plenty of time in our work day to work on other garden-related projects.

Perhaps the biggest and most exciting additions to the Carrden this year were the first batch of chickens kept in the garden's chicken coop, who were donated to the school by cross country coach Ben Mourer. "We thought of the idea of using part of our shed for their coop, and using that unused corner in the garden for their space, so it kind of just came together last spring," Kerstin explained. While the chickens are only just approaching the age where they can lay eggs, they have still proven useful for eating weeds, and providing entertainment for both workers and passersby. This writer would like to take a moment to recognize the late Rusty the Rooster, who was a good boy.

Another major renovation in the Carrden was the deconstruction of a few of the raised wooden beds on the far side of the garden. These beds had been in place since the garden's debut eight years ago. A layer of wood chips was placed on the pathways surrounding these beds to replace the gravel, since gravel surrounding the dirt would have been bad for future crops and the soil may have gotten washed away. Then the selected beds were dismantled.

"A lot of them were falling apart after eight years," Kerstin said, "so we could have either fixed the raised beds as they were, or taken them apart. I think having the in-ground beds is a more realistic demonstration and use of the space as a small-scale farmer would use it... In the long run it will be less expensive to maintain." As more raised beds continue to wear down, more in-ground beds may be created to replace them, but only time will tell.

There were also a number of smaller things introduced to the Carrden this summer, mainly for the sake of convenience or aesthetics. Among these were a wood chip path leading from the garden to the harvest shed, a row of sunflowers that were planted alongside the path closest to the road, and rocks that were painted to display the specific ID numbers for each bed, and then placed in those beds so that students could quickly discern which bed was which. A big reason for the Carrden's constant improvements and updates are for students to become familiar with the garden and how it functions, so that clearer communication and greater accessibility are possible for new workers and volunteers. Also, the Carrden is monitoring and documenting levels of rainfall, for the sake of knowing how much water the crops are getting.

The constant changes and adjustments in the garden are part of the appeal of working there. "That's part of the thing I like about gardening and growing food," Kerstin said, "every year you can change things and make things look different; nothing's ever static." After working in the Carrden over the summer, it's not hard to see how engaging these constant changes and improvements really are. There's a certain satisfaction in seeing some new addition to the garden and knowing that you did that, and even now I find myself returning to the Carrden to observe, not for the sake of nostalgia or scenery, but for the sake of seeing what's changed since I was there last.

Allegheny Professors to Develop Research Center

Since March of 2021, Casey Bradshaw-Wilson and Kelly Pearce have been hard at work on a project that will increase hands-on research opportunities across the campus.

In February of 2020, the Richard King Mellon Foundation reached out to President Link to gauge Allegheny's interest in starting a freshwater ecosystems institute. The foundation is based in Pittsburgh, PA and is interested in conserving ecosystems in the Allegheny Watershed, of which French Creek Watershed is a subcatchment. Casey and Kelly saw this as a great opportunity, wrote a grant proposal in March of 2021, and were funded by mid-June.

The title of the institute is Watershed Conservation Research Center (WCRC) and plans are in place to have projects starting the summer of 2022. Kelly and Casey are touring schools with similar institutions throughout the academic year to explore the options for WCRC at Allegheny, but they do have a good idea of the shape it will take.

The WCRC will stay true to Allegheny's ideals by taking an interdisciplinary approach. There will be projects across departments to look beyond the ecological importance of the watershed to the economic and cultural significance it has on the people that live here and use it.



The pillars of WCRC are research, partnerships, and education. Casey and Kelly would like to collaborate with Creek Connections and many local community organizations (ex. French Creek Valley Conservancy) in order to assist with projects and increase student opportunities. Connection with the community is especially important to Casey and Kelly's vision, which they will strive for education (k-12 and collegiate), community collaboration, and a research symposium open to the public. The goal of student and community education is to create lifelong watershed stewards, no matter the career.

Students will have the opportunity to get involved in WCRC throughout the year, but the summer will be the most research-dense part of the year. An official press release is on its way through the college and the Richard King Mellon Foundation, so interested students can be on the lookout for more information there. Casey and Kelly are excited to see their work in motion and for the opportunity to do more work outside of the classroom with their students.

Allegheny Environmental Clubs!

Join Today!

Looking for fun, affordable adventures?
Join Outing Club

for hiking, biking, canoeing, camping, and more!
Email outing@allegheny.edu to join our mailing list



**SUSTAINABLE
DESIGN TEAM**

**Thursdays
8-9 pm
Carr 220**

LEARN ABOUT PERMACULTURE PRINCIPLES,
FOOD FORESTS, AND OTHER COOL DESIGN
PROJECTS AROUND CAMPUS



**Students for Environmental
Action (SEA)**
Thursday @7 in Carr 120
sea@allegheny.edu



**ALLEGHENY COLLEGE
BIKE SHARE**

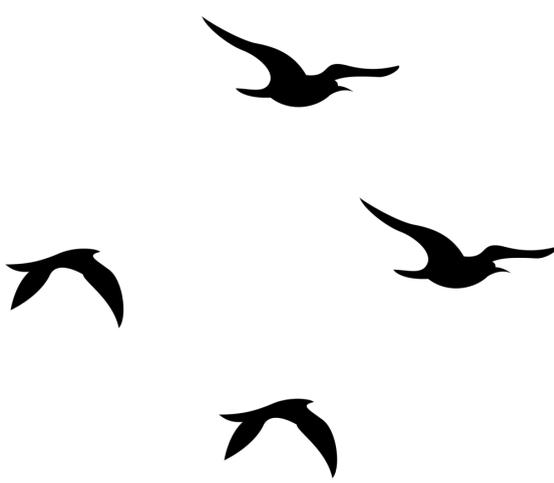
Bikes can be obtained at Pelletier Library

BIKE SHOP HOURS:
Mondays and Wednesdays 5-7 pm

Rent + Learn to Repair Bikes!



A Touch of The Arts



Season of mists and mellow fruitfulness,
Close bosom-friend of the maturing sun;
Conspiring with him how to load and bless
With fruit the vines that round the thatch-eves run;
To bend with apples the moss'd cottage trees,
And fill all fruit with ripeness to the core;
To swell the gourd, and plump the hazel shells,
With a sweet kernel; to set budding more,
And still more, later flowers for the bees,
Until they think warm days will never cease,
For summer has o'er-brimm'd their clammy cells

An excerpt from John
Keats' "To Autumn"

Want to Write Our Next Poem?
Email Molly Tarvin at
tarvinm@allegheny.edu

Contributions By:

Molly Tarvin
Sebastian McRae
Tim Weighart
Danielle Studer
Austin Reardon
Leuca Hanish

Faculty Advisor:
Rich Bowden



Art by: Leuca Hanish