

Hands-on science; beyond the labs

Valentina Ferreira Figueroa

Lake Forest College
Lake Forest, Illinois 60045

What comes to your mind when you hear hands-on opportunities for science at Lake Forest College? Oftentimes we think of our beloved summer lab research and RFU programs. However, when you really look at the greenery of our beautiful campus, you will find a variety of opportunities and life within our greenhouse, restoration areas, and student garden. Today's article will introduce you to these important projects under the environmental studies department.

Starting with the Lake Forest College student garden, located behind Glen Rowan house, is a 100% student-led initiative under the guidance of the E.S. Department Assistant Anna Evans. Its purpose is to learn how to grow 100% organic fresh produce on campus by students and for students between the months of May and October. Over the summer, garden stewards work tirelessly to grow, take care of, and harvest all kinds of vegetables, roots, fruits, and herbs. The goal is to make this healthy produce accessible to all students. To do that, every week, the garden has a "pay what you can" produce sale on campus, open to anyone -but focused on students- so they can get fresh and affordable produce on a regular basis to promote healthy eating and the value and power of our environment. The garden is important to our college's community in many ways. Beyond selling its produce to students on campus, the garden has a growing partnership with Parkhurst dining and the cafeteria. Whatever produce is left over after our sale, the cafeteria buys to serve to students on the meal plan, which aims to put hyperlocal food on students' plates and ensure all students are getting access to our campus-grown organic produce. One of the main benefits of the student garden is how it underscores the College's commitment to sustainability. One of our garden stewards (Bowen Murley '24) explained it as follows "Compared to a truck driving from California to bring produce to Illinois, being able to grow some of it right here, even if it is not a huge quantity, helps sustainability efforts on campus." The garden also has a full cycle sustainability initiative by composting the fruit and vegetable scraps from the cafeteria which helps reduce food waste and keeps our soil healthy and full of nutrients.

Moving on to the campus greenhouse, is supervised by Dr. Wesley (in the Biology Department) and found on the first floor of Lillard. It was completed in 2018 and its main purpose is to serve as a learning tool for a variety of Environmental Science and Biology classes. The greenhouse is home to a variety of plants including ecologically threatened species, economically and culturally important ones, and diverse plants from many different parts of the world, such as yerba mate from South America. We also have different kinds of orchids, vanilla bean, carnivorous plants, epiphytes, desert plants, etc. that all require great care and knowledge to grow. Thankfully, the E.S. department has a wonderful group of greenhouse student workers who are dedicated to taking care of and this simultaneously provides jobs for students especially those majoring in the life sciences. In addition to being a great learning and preservation environment, some of our faculty use this space for their own plant research. This is important because as students often work with faculty for research, having this space increases the opportunities for interested students to get involved in such projects. Lastly, the greenhouse plays another key role because it is the perfect environment for growing plants in the spring for the student garden as well as cultivating native plant species for the ecological restoration projects on campus.

Lastly, the least known yet important initiative, is our restoration areas. "Campus restoration areas initially started after the 2017-2018 expansion of the science center was expected to create new issues of stormwater runoff. To prevent this, the City of Lake Forest required the college to install a new stormwater detention facility on Middle Campus and, after some debate, the college decided against building a conventional detention pond. Instead, they hired local landscape architect Cliff

Miller to design a wetland area called the Wetland Learning Lab which functioned as both a stormwater detention facility and a place for experimentation and education" (LFC website). However, restoration areas now have grown across campus to house incredibly important species that are native and non-invasive to the land that the college is on. It is an incredibly important initiative because it is the college's way to pay homage and preserve the land that the college was built. It acts as a forest preserve that can show and allow us to learn about the land we live on before it was a manicured college campus. The restoration areas simultaneously create a hands-on learning environment for botany classes such as Lake Forestry and Intro to Environmental Science. These areas are completely open for all students to visit in a respectful way to enjoy the local nature of our campus and learn about it. The E.S. department has hired student workers to take care of restoring the area and removing invasive species that outcompete important non-invasive ones. This shows how it is a project that supports the student community by providing them with jobs that simultaneously promote a healthy learning environment.

These initiatives are important and impactful to the community for a variety of reasons. Firstly, they create incredibly valuable and accessible learning environments for the entire campus to benefit from beyond (but including) the Lillard community and Biology/E.S. majors. They are projects created for and by students to support our peers and make the land we stand on accessible and known to everyone; something the college owes us all and we owe it as well to engage, instead of taking it for granted. The greenhouse, garden and restoration areas are set up in a way that they support all students/faculty with different lifestyles and interests to integrate everyone in a single campus community interested on our environment. Beyond that, it is beneficial in the way that it provides student jobs for anyone interested without a necessary breadth of knowledge in the life sciences while still being a big learning opportunity; they are spaces for hands-on opportunities to engage with science with a focus on the local. In addition, it is important to invest in these three initiatives because it also creates spaces for faculty to engage with the campus through research or class tools which makes us an attractive college for passionate professors. Our hopes are that person by person, we can turn our campus community into an engaged and supportive one of these initiatives that promote learning, appreciation for the environment, and restoring our local land to become a more sustainable campus. Finally, if you are still asking yourself why you should care and invest in these projects, even if you do not consider yourself "into nature", let me ask you: have you ever asked a fish if it is "into water?" At the end of the day, we all live on this campus and on this earth and its worth our time beyond the classroom to support it while we learn about it.

You can get involved with these initiatives by emailing Anna Evans (aevans@lakeforest.edu), the E.S. Department Assistant to get on our email list, volunteer for garden workdays or ask about job openings in any of these. Make sure to follow @lfcgarden on Instagram to keep up with our weekly produce sales or any other events that are open to the public, such as monthly open houses during the early fall and late spring semesters and any other events we may host.

Note: Eukaryon is published by students at Lake Forest College, who are solely responsible for its content. The views expressed in Eukaryon do not necessarily reflect those of the College.