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Aracely Eikenberry
Calvin University

Stephanie Praamsma
Calvin University

Gail Heffner
Calvin University

David P. Warners
Calvin University, david.warners@calvin.edu

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Green Team– Urban Ecological Restoration

Araceli Eikenberry, Stephanie Praamsma, Dr. Gail Heffner, and Dr. David Warners, Calvin College, Grand Rapids, Michigan



Introduction

Plaster Creek, though its watershed is home to many potential stewards in Grand Rapids, is the most polluted creek in West Michigan. The Green Team, an initiative of Plaster Creek Stewards, is a group of students that work during the summer with a three-part focus: research, education, and restoration projects within the watershed. The team works toward this goal through urban green infrastructure, utilizing native plants to manage stormwater. Two Calvin students, Araceli Eikenberry and Stephanie Praamsma, and eight high school students living in the Plaster Creek watershed were hired by PCS this summer to work and learn together. The group was mentored by Gary Warners, a middle school science teacher. Nearby in Rockford, a similar Green Team for the Rogue River worked to maintain their watershed, and joined the Plaster Creek team occasionally for projects.



July Green Teams after end-of-session finale

Our Work

Alongside the high school students of the Green Team, we worked with our leader Gary Warners on various Plaster Creek Projects. We joined them in restoring our watershed through native landscaping, meeting community leaders, hearing about environmental careers and workplaces, and learning in the classroom about watershed ecology. A key focus of our work was to develop personal relationships with the students, and to be open, relatable sources of knowledge about our journeys through life and college. During our days together we learned about each other's diverse backgrounds, cultural nuances, passions, preferences, and dreams and plans for the future. To conclude each session, photos and stories articulating the experience and the importance of our work were presented at a finale dinner for the students and their families. Students received awards and plants highlighting and affirming their unique personal characteristics. Through this work we became better at learning through listening and leading by example. We hope the students leave this experience with a better understanding of restoration, a pride in their positive environmental impacts, and a confidence to pursue college and possibly an environmentally conscious career.

Projects

Alger Heights and Oakdale Rain Gardens

We prepared, planted, and performed maintenance on rain gardens to capture, slow, and cool street runoff to Plaster Creek from these two target neighborhoods.

Kreiser Pond

We removed invasive species and sowed native seeds at this restoration site intended to capture, slow, and clean storm water in Silver Creek, a major tributary to Plaster Creek.



Left: Students shadow and assist in HIV research



Right: Students learn to collect native seeds

Research Shadow Day

For one day each session, students were matched with Calvin researchers to shadow and learn about research and doing research for a college.

CRC Denominational Building

We removed invasive plants and planted native plants at the Christian Reformed Church's world headquarters building, a site of a restored prairie in progress, rain gardens, and a number of native plant berms.

Catalyst Partners

We performed maintenance on a bioswale and native landscaping around Catalyst, an environmental consulting business in downtown Grand Rapids. During our visit, we received a tour of the most highly LEED-certified building from Catalyst Partners president Keith Winn.



Students transplant native seedlings in the greenhouse

Well House

We lent helping hands in planting native plants at a community farm at Well House, a Grand Rapids organization that provides safe, affordable housing to the homeless.

Native Plant Propagation

We collected seeds, sowed seeds in a greenhouse, and transplanted the seedlings of native plants for the use in future plantings.

Green Team Student Reflections

“It helped me learn about my neighbors and [my coworkers]... we had deep conversations sometimes when it was hot and we were weeding and had nothing else to do but talk. We talked about things in life and what it's like to be in college and how to prepare, so it was more than just planting.”

– *Ja'Kayala (10th grade, July)*

“I had a lot of fun meeting new people. It was a great first job for me to have.”

– *Josiah (11th grade, June)*

“It was a really great experience and a lot of fun getting to know these kids. We got really close, which was pretty cool.”

– *Morgan (9th grade, July)*



Maintenance at Catalyst Partners

“Overall I thought this was an incredible experience... One of the main things I learned was cooperation. I'm very proud to see how well we worked together. I got to know so many people through the conversations we had between weeding and wading in the creek... it was amazing to see an awesome result from our work.”

– *Niyah (10th grade, July)*

“Even while pulling weeds, it's still fun.”

– *Meghan (10th grade, July)*

“I learned how we can work together, and that's a valuable lesson.”

– *Noah (11th grade, June)*

“One day we walked through a beautiful lush forest... we spent two and a half days doing nothing but weeding, we walked through two feet deep mud together, we also walked through a field full of poison ivy to collect seeds, but we had fun doing all of this. Overall, this experience was definitely worth it. It not only taught me how to do good work, but I also made some cool new relationships and strengthened some old ones.”

– *Eli (9th grade, June)*



July Green Team plants a rain garden at a June Green Team member's house

Calvin Student Reflections

This summer I not only was able to take part in restoration work, but I was able to share my passions with other future restoration workers-- the Green Team high school students. I learned so much this summer through my relationships with people of different ages, skin colors, life experiences, passions, and interests. Restoration work brings people together, people from all backgrounds, and gives them a way connect and learn from each other. This has been a wonderful experience, and I can't be more grateful for the chance it has given me to make a difference in this world.

– *Stephanie Praamsma (Junior)*

Being a part of the Green Team has made this summer the most fulfilling yet. Fellowship with the other Plaster Creek stewards has been more enriching than I could have expected - we have heavy and light discussions during work, breaks, and lunch, and we laugh both on the job and at our potlucks. Working with the Green Team high schoolers has been priceless - we make a diverse group; and listening, learning, and leading has taught me much about servant leadership and community. I regard the skills I've fostered here as essential, and I am left more excited for my future than ever.

– *Araceli Eikenberry (Sophomore)*

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