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Leira Lew

Calvin University

Micah Warners

Calvin University

Gail Heffner

Calvin University

David P. Warners

Calvin University, david.warners@calvin.edu

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The Green Team and the Restoration of Plaster Creek

Leira Lew, Micah Warners, Dr. Gail Heffner, and Dr. David Warners, Calvin College



Introduction

Many urban youth are spending less and less time outdoors learning about nature. The Green team's goal was to not only promote interactions with nature, but also to promote pursuing higher education among high school students.

The Green Team is a group of high school students from the Plaster Creek Watershed that works to learn about and restore Plaster Creek. The students were led by middle school science teacher Gary Warners, as well as college students Micah Warners and Leira Lew. The team learned about watershed ecology, planted rain gardens, collected seeds, removed invasive plants, grew seedlings for future plantings, and had lots of fun together.

Summer 2016 was the fourth year of having two sessions of the Plaster Creek Stewards Green Team, with eight students total in June and July. It was also the second year that the Rogue River Green Team based in Rockford, MI joined for joint projects. These high school students came from many different backgrounds, but all worked together with the common goal of restoring their damaged waterways.



The Plaster Creek and Rogue River Green Teams planting native plants to protect the stream bank of Rum Creek.

Our Work



Green team members working at a rain garden in Alger Heights

As college students, we served as mentors to help guide the Green Team students. With our leader Gary Warners, we worked alongside these students. Our hope is for the high schoolers to grow with confidence in their understanding of pursuing college and its positive impact. It has been a joy to get to know each Green Team member and to learn about their lives as we have shared from ours as well. We were able to encourage them in their future college plans and hopefully make college a less intimidating and more welcoming place. Each session includes classroom time, a meal with professionals discussing different careers in Biology, and a day of shadowing, where Calvin student researchers invited our students to learn about and help with their projects.



The Plaster Creek Green Team working on native landscaping at a private residence in Heritage Hill

Projects

Alger Heights Rain Gardens

The Green Team helped install ten curb-cut rain gardens in Alger Heights, a neighborhood that is in the process of receiving 45 of these residential gardens over two years. Curb-cut rain gardens capture storm water by diverting it from streets into the dug out tree lawn through a break in the curb.

Research Shadow Day

One morning of each session the Green Team students shadowed Calvin research students in a wide variety of exciting projects.



Green Team students shadowing evolution of whale bones research project with Calvin College research student.

Stream Bank Restoration

Green Team members worked to reinforce the banks of both Cedar and Rum Creeks, tributaries to the Rogue River, by planting native plants on the creek's banks to reduce erosion and runoff.

CRC Denominational Building

The Green Team worked to maintain native gardens at the CRC Denominational Headquarters. We weeded, added plants, and watered native trees. These plants and trees are great for native wildlife such as insects, birds and butterflies.

Kreiser Pond

This work involved maintenance and plant additions to a large restoration project at a detention pond intended to slow down, clean and reduce stormwater of Silver Creek, a tributary of Plaster Creek.

Native Plant Propagation

We collected seeds of native plants, grew them in a greenhouse, and transplanted them for future use in restoration projects.

Conclusions

Green Team Feedback:

"I loved learning..about the Plaster Creek Watershed. I knew nothing about everything we were learning (before)." -Jenna (12th grade, July)

"The relationships you build in Plaster Creek Stewards--it's worth your while." -Jason (12th grade, June)

"Now I know the names of many plants. I'll be driving by and will be like, There's a purple cone flower! And that's pretty cool." - Nicole (9th grade, July)

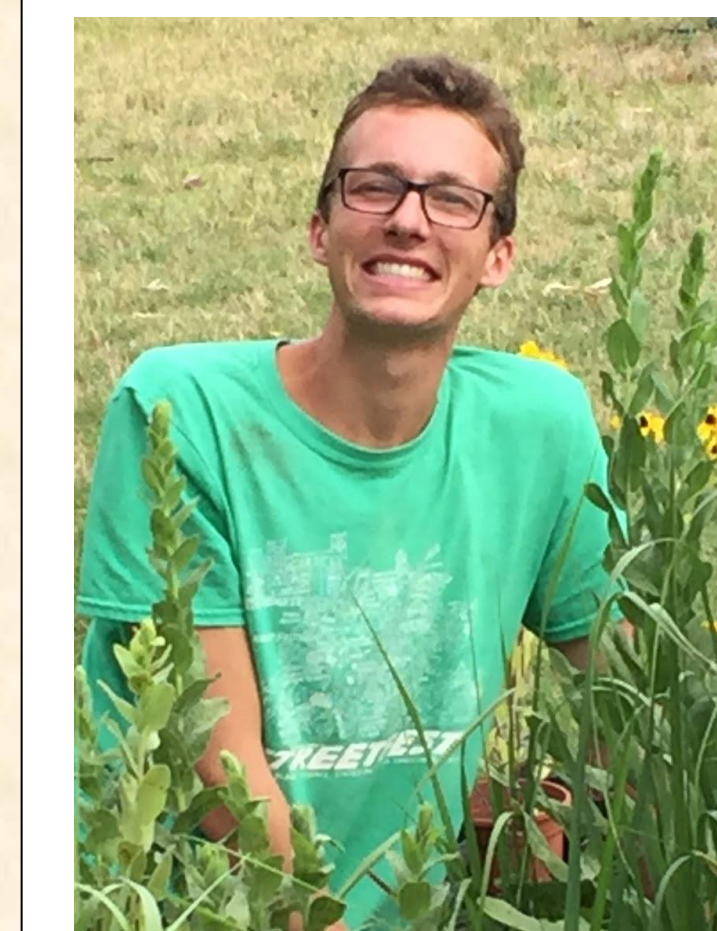
Our Reflections:

Micah:

I really have enjoyed working with the Green Team. Some of my favorite days were those working with both the Plaster Creek and Rogue River Green Teams. It was awesome to see them work and learn together, building friendships and community around taking care of our watersheds. I personally, as well, really enjoyed getting to know each student.

Leira:

I did not know what to expect going into this new job, but I was blown away by the amazing students I met, the diverse set of backgrounds, and the great experiences we had along the way. We would go home tired, but knowing we had made a difference with our work. And that is a priceless feeling. From conversations while transplanting to adventures exploring Plaster Creek's pathways, I enjoyed getting to know the students and seeing what great ideas and dreams they have for their futures. It was really fulfilling to see the students discover a passion for looking after their own community. Huge thanks to Micah and Gary for showing me the ropes and the students, who taught me so much!



Acknowledgements

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