

Site Stewardship Program: Outreach

Gabriella Alvarez, Biochemistry, 3rd Year

Provost's Sustainability Internship Program:

Site Stewardship Intern

Dave Roe: jdroe@ucsc.edu

Bill Reid: billreid@ucsc.edu

Abstract

In this paper I will explain the methods used to improve Site Stewardship outreach efforts on campus, including movie creation, finishing of the interactive sign project, and tabling. The project also included direct work of invasive plant removal and restorative practices. The success was measured in finalization of major projects such as interactive sign project yet fell short on movie creation as more pressing projects required more attention. Overall this project was a success. Some work days and projects had to be delayed but many issues arose simply due to unforeseen lack of funding or unavailability of product, yet projects were still completed, and those completed projects will be detailed in this paper.

Problem Definition

The Site Stewardship Program addresses sustainability issues of invasive species, endangered species, pollution and effluent. More broadly Site Stewardship aligns with goals set by the Campus Sustainability Plan which state the need to “elevate and sustain a campus climate, culture and brand that values stewardship” (Campus Sustainability Plan).

The University of California, Santa Cruz campus is uniquely situated among the California Redwoods and is home to various diverse species and ecosystems. Invasive species such as English Ivy invade the area and make it difficult for native species to thrive. Invasive plants out compete other plants and lower the biodiversity of the area which can be detrimental to other species reliant on these plants for nutrients. An effective way to mobilize against invasive plants is educating the public and the use of social media to engage young people (Devoe). We at Site Stewardship are addressing this issue in that we aim to use social media to engage the student population to care about issue of invasive species and ecological restoration.

Site Stewardship addresses water pollution in that many restoration projects aim to reduce compaction and sediment run off. This sediment would only be washed away into the waterways and eventually our water sources (Ffolliott). Grounds services does attempt to mitigate these effects through maintenance of problem areas but the communities help is needed.

Through awareness and education some problems caused by short cut paths that encourage sediment runoff could be treated.

Many native species to the UCSC campus are also endangered or specific to the campus natural lands. Species such as the Ohlone Tiger beetle are native to specific Santa Cruz ecosystems (Cornelisse) and as the owners of the land the campus has a duty to preserve these areas to continue the species growth. Other native species such as the Manzanita are being outcompeted by Invasive fir (Guzman). These native species mean a great deal to other Santa Cruz communities such as the Amah Mutsun tribe therefore the land restoration and upkeep of invasive removal is key to both ecological, historical and cultural preservation.

Project Description

Our two main goals for this project were outreaching to the Santa Cruz community about Site Stewardship efforts through various media and increasing volunteer event attendees. In future years we hope to continue outreaching and creating media that lives on such as the sign in Cowell Meadows. Site Stewardship hopes to increase its visibility on campus and grow a network of campus stewards for years to come.

A goal was to increase volunteer event attendees, we did this by creating fliers for upcoming volunteer day events (Appendix A &B), emailing and utilizing Facebook to reach as many students as possible. Facebook was used to notify members of upcoming Site Stewardship events and post photos of past volunteer events. “The Official Group of UCSC Students” page on Facebook was utilized to post about upcoming volunteer day events. The fliers created were used for Site Stewardship and also distributed by Land Trust of Santa Cruz. Fliers created for the joint work day with City of Santa Cruz were sent and also distributed to offices in City of Santa Cruz. During the year our office hoped to facilitate more work days but availability of supplies and coordinator availability was limited. Another goal was to continue our contract with organizations affiliated with the adopt-a-site program. We contacted Sigma Pi to conduct a volunteer day with their organization where they re mulched the Jordan Gulch Trail from Merrill to College ten. The re mulching was needed to keep the pedestrian traffic from completely

eroding the soil surface. The work day also served to educate a group of students unaware of site stewardship and their mission. (Appendix E)

Another goal was to create media that would facilitate learning and bring the idea of stewardship to a broader audience. A variety of different media was created to promote Site Stewardship. I created a short movie with Windows movie maker regarding ad hoc bike paths. Another movie was also created regarding invasive species on campus, ways they are spread, and ways to prevent them. Another movie was in the works regarding a Mountain Bikers of Santa Cruz event where they were restoring parts of the bike path. The message and video were scrapped however as UCSC does not condone the off trail use cyclists and the movie was walking too thin of a line between condoning upper campus biking paths (which UCSC does not) and praising restoration efforts.

The biggest media project however was the interactive sign project. The project had been in the process for two years, facing time and material constraints but was put into motion early winter quarter. I created the text and compiled the photos used for the interactive sign project that is currently being created by the sign shop and carpenters and set to debut in Spring quarter. The sign will be placed in Cowell meadows and details the restoration project and steps that can be taken by pedestrians to minimize their impact on the site. (Appendix C)

The need of the Site Stewardship Program was to become more visible to the student population to be more accepted in the various restoration projects on campus and involve more students in volunteering and contributing to the restoration of the land. The project impacts the natural lands and in turn the campus. The project environmentally affects the water quality as maintenance of restoration sites is key to prevent sediment run off. The project also affects those who socially rely on these lands and the native plants in the area that may have cultural connections to some. The work of educating on restorative practices gives reason to students to not be complacent in destructive practices on campus. This education in turn can make students more likely to aid Site Stewardship on volunteer days, increasing the efforts and fight towards a sustainable campus.

Project Timeline

Fall:

- Planning Logistics for Winter quarter Volunteer Days
- Creating movie on ad-hoc bike trails for FB outreach
- Researching for Dual Volunteer day flier
- Assisting Dave and Bill on campus restoration efforts

Winter:

- Creation of volunteer Day Flier for Antonelli Pond Work day
- Two Volunteer Days planned in collaboration with Land Trust of Santa Cruz
- Interactive Sign Project- creating text, selecting photos and meeting with those helping to create it
- Tabling for Hummingbird Day and at the Quarry
- Collecting Media to be used in second FB movie

Spring:

- Two volunteer days in partnership with City of Santa Cruz, (one solo volunteer day facilitated without Bill)
- Tabling for Earth Day Eco-Fest
- Interactive Sign Project- completed and produced to be up by graduation
- Aiding Bill with Interns and leading interns on work days he was not present
- Second FB movie concerning invasive species produced

Project Stakeholders:

Dave Roe- Assistant Grounds Superintendent

· Key mentor who assessed projects, gave feedback on various goals and objectives through the year and helped out administratively.

Bill Reid- Groundkeeper/Site Stewardship Coordinator

Provided feedback and expertise in various SSP projects, coordinated volunteer days, helped identify problem areas for future volunteer days.

Ginger Wojciechowski - Land Trust of Santa Cruz Coordinator

Aided in Antonelli Pond volunteer day, communicated to Gabriella directly to create the volunteer event flyer, co-sponsored event with SSP

Mitch Smith- Carpenter

Completing framework for Interactive Sign Project

Erik Borrowman & Kurt Workman- Sign Shop

Completing layout and printing for Interactive Sign Project

Meta Rhodeos- City of Santa Cruz

Coordinator for Broom Day Bash, communicated to Bill and Gabriella about the event

Measurable Results:

Outreach efforts were measured through Facebook features that indicate amount of users reached and amount of likes on the page. For volunteer events results were measured through amount of attendants at volunteer days and amount of sign ups for the mailing list from events. Site Stewardship kept track of how many events they tabled at and how many hours of volunteer work in total have been put into UCSC's ecological restoration.

The winter quarter saw an increase in Facebook likes and interactions as students became informed of our volunteer days through social media. The Site Stewardship page currently has 112 likes on facebook, a 9% increase from last year. The facebook page insights also shows that the flyers for the Antonelli pond volunteer days reached over 1000 facebook users.

Other projects such as media creation for site stewardship use is measured project by project but the Interactive Sign Project has been completed. The sign, which details the restoration project on Cowell Meadows, is to be debuted at graduation where several

commencements are too occur in East field. One of the movies about the bike trails in upper campus is posted on facebook and will be used by Bill in the future for education on sustainable bike practices and the second movie on invasive species on campus is going to be posted on facebook following finals week.

Site Stewardship was able to volunteer at OPERs fest, Humming bird Day, Earth Week, and in the Quarry. We reached many students and faculty curious of our stewardship efforts and explained some issues on campus we were trying to mitigate. At these events we obtained 172 signatures.

We planned four volunteer days for the public. Two days were planned at Antonelli pond to clean up English Ivy (Appendix D) and two were planned at the Pogonip overlook to clean up French broom near the trails. We totaled about 118 hours of volunteer work from our projects.

References:

Campus Sustainability Plan 2017-22. (2017, June 5). Retrieved June 6, 2017, from <http://sustainability.ucsc.edu/governance/plans-reports/campus-sust-plan/>

Cornelisse, Tara Mae. (2013). Conservation of the endangered Ohlone tiger beetle (*Cicindela ohlone*). UC Santa Cruz: Environmental Studies. Retrieved from: <http://escholarship.org/uc/item/4wb0w58w>

Devoe, N., Nowak, B., & Florence, S. (2009). Effective Management of Invasive Plants. *Rangelands*, 31(3), 21-24. Retrieved from <http://www.jstor.org/stable/27735338>

Ffolliott, P., Baker, M., Teclé, A., & Neary, D. (2003). A Watershed Management Approach to Land Stewardship. *Journal of the Arizona-Nevada Academy of Science*, 35(1), 1-4. Retrieved from <http://www.jstor.org/stable/40056921>

Guzman, K. (2014, November 28). Santa Cruz County land trust restores Native American stewardship. *Santa Cruz Sentinel*. Retrieved from <http://www.santacruzsentinel.com/article/NE/20141128/NEWS/141129458>

Appendices:

Antonelli Pond Flyer: (Appendix A):



1/29 & 2/12
ANTONELLI POND
CLEANUP

Join the volunteers at Land Trust of Santa Cruz County and UCSC pull the invasive species, English Ivy, that restricts native plant growth

Join us to learn about diverse riparian species at the pond while saving their habitat. Bring sturdy closed toed shoes, water, and a lunch. We will provide gloves but if you have a pair of gardening gloves please bring your own. Participants, under the age of 18, must have a parental guardian present OR contact us prior and have the liability waiver signed before attending. Email us with any questions and see you there!

Where:
Antonelli Pond
2500 Delaware Ave.
Santa Cruz 95060

When:
January 29th and
February 12th
10AM-1PM

RSVP at:
www.landtrustsantacruz.org/events

Meet at kiosk off of west end Delaware entrance. There is ample parking on Delaware Ave.

PHONE:
(831) 429-6116

EMAIL:
volunteer@landtrustsantacruz.org

WEBSITE:
WWW.LANDTRUSTSANTACRUZ.ORG

Broom Bash Flyer: (Appendix B) :



THE UCSC SITE STEWARDSHIP PROGRAM IN PARTNERSHIP
WITH THE CITY OF SANTA CRUZ PRESENTS:

BROOM BASH

Come celebrate with a group of new friends as we remove invasive French Broom from the beautiful Pogonip open space. We will learn about the fascinating history, both natural and human, of this treasured park as we bask in the great feeling of participating in a crucial environmental undertaking.

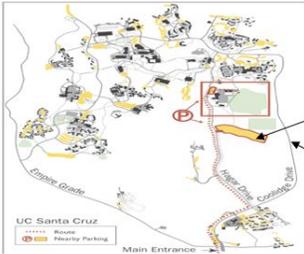
What: A Volunteer Workday for French Broom removal at the Pogonip open space.

When: Saturday May 20th, 10AM-2PM

Where: Volunteers who drive will park at the northeast (back left) corner of the East Remote parking lot (free parking) located off of Hagar Drive. Follow the signs from the main (East) entrance of campus. A marked trail will lead to the work site.

All others meet at the Pogonip overlook on Coolidge Drive on the UCSC campus. | Please see the map.

Bring: Layered clothing, boots or sturdy shoes (No open-toed shoes please), hat & sunscreen. Snacks, water and gloves will be provided! Only hard rain cancels. Come prepared to get dirty and have some fun



RSVP and/or send questions to:
grounds_interns@ucsc.edu. **or call Bill Reid 459-4680**

Park here (East Remote) and follow signs to worksite!

Worksite here (Pogonip overlook)

Interactive Sign in process (Appendix C)



Volunteer day at Antonelli Pond: (Appendix D)



Sigma Pi Volunteer Day (Appendix E)

