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College of the Environment

Summer 2024

## **OneHeartWild Intern**

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Zobrist, Cayla A., "OneHeartWild Intern" (2024). *College of the Environment Internship Reports*. 254. https://cedar.wwu.edu/cenv\_internship/254

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# COLLEGE OF THE ENVIRONMENT



Internship Title: One	Heart Wild Internship
Organization Worked F	or: One Heart Wild Sanctuary
Student Name: Cayl	a Zobrist
Internship Dates:	6/23/24 - 9/13/24
Faculty Advisor Name	David Rossiter

Department ENVS

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STUDENT SIGNATURE Cayla Zobist DATE: September 12, 2024

## Internship Organization

<u>One Heart Wild Sanctuary</u> is a nonprofit corporation located in Washington State, founded by the chair, board of director, Drea Bowen. Drea is accompanied by fellow board members Brenda Newell, Brie Youngker, and Roby Snyder. Each and every one of these individuals dedicates their care to both animals and people who are seeking self-healing. One Heart Wild has a mission that prioritizes relationships while providing a forever home to animals and inclusive therapeutic support for people. The sanctuary envisions a community that inspires healing, kindness, and advocacy through empathetic relationships with all life on earth.

One Heart Wild is the home to over 70 permanent animal residents who were all brought in under the care of the team. The sanctuary's crew is made up of the clinical team, sanctuary team, and volunteers. Care for the animals happens 24/7, 365 days a year, rain or shine. The staff members work hand in hand with various veterinarians all over the county constantly staying on top of the resident's health conditions and needs. Volunteers and the animal care staff are the foundation of the sanctuary. Without the help of every one of these dedicated team members' contributions, One Heart Wild would not be where it is today. The clinical team is made up of five members who are all certified/licensed in their own specialties but share the same goal of helping those in need of mental health support.

<u>The ROOTS Institute</u> at One Heart Wild is made up of a team of dedicated individuals seeking to teach and mentor the next generation of equine/animal-assisted services. The institute focuses on building respectful, balanced relationships between humans and animals in a therapy setting, importantly using no control or dominance. By using science-based techniques such as psychology, ecology, and neuroscience, ROOTS teaches those how to work with animals as equal partners, valuing them as much as humans. The institute has a main goal that aims to change the way we as humans view and treat animals which creates a healing experience that not only benefits the people, but also the animals in a more natural way.

The institute is made up of 2 levels which students are able to decide to complete. Level 1 is where students start out seeking to understand a ROOTS-informed approach to animals and equine-assisted therapeutic intervention, taking about 2 months to complete. Those wishing to be Certified ROOTS Institute Practitioners continue onto level 2 which would take students about 12 weeks to complete. While students are completing level 2 they are performing field and online assignments as well as building skill proficiency in preparation for one 5-day onsite experiential training class.

Among the direct care the sanctuary provides for animals and people, their commitment to education plays an important role in furthering their mission by educating and advocating for a more humane and resource conscious world. Through school programs, speaking engagements, and conferences, the team is dedicated to insisting on change and fostering a kinder, healthier future for both animals and people.

## Internship Responsibilities

During my internship at One Heart Wild, my responsibilities included animal care, but my primary focus was on a larger project aimed at enhancing the forested areas along the driveway entering the sanctuary. Drea Bowen, executive director at One Heart Wild, tasked me with the project of removing all invasive species alongside the driveway as well as clearing out any dead wood as it is not much of a benefit to insects and birds. Once I had completed this task the next step was to visit some nearby nurseries and choose a variety of native plants that would suit the newly cleaned landscape. When deciding which plants would fit best along the driveway I had to take into account many factors, such as sun exposure, soil types, water requirements, etc... I went about this by marking out some test sights along the driveway and started with seeing what the soil type was like in each area. I then took some water and poured it into the test sites to see how well the water was draining in the soil, while also taking into account how much sun and shade was present. This then helped me decide which native plants would fit best alongside the driveway. Once I gathered the information, I marked each planting spot with flags, which helped visually and made it easier to plan the locations for each native plant.

Drea presented me with two native plant nurseries, <u>Woodbrook Native Plant Nursery</u> and <u>Salish Trees Nursery</u>, both located within Kitsap County. I visited both and took a close look at their inventory selections as well as compared prices, in the end I ordered 33 different native plants resulting in 16 new species being introduced into the sanctuary. In conjunction with introducing the new species, Drea wanted to make sure that they were appropriately identified by signage to any one who walks the newly renovated drive. On the signs I made sure to include various information such as what native americans might have used the plant for, how the plant benefits wildlife, birds, insects, as well as three unique facts about the native plant species. After I designed the signs, I paired with a local company, <u>DandelionStickerCo LLC</u>, who was able to print and mount the decals of information onto 4x6 metal garden signs.

As One Heart Wild prioritizes education and advocacy, the educational signs provide a great resource to those who participate within the sanctuary's therapy program, as the driveway is constantly being walked. The final and one of the most important steps of the project was to find a cage-like solution to protect the plants from wildlife and resident grazers, allowing them time to mature. An easy solution to this was a flexible plastic type netting in which I was able to wrap around the plants and safely secure them with zip ties and bamboo sticks. This prevented deer and smaller ground creatures while giving the newly planted species time to grow.

#### Designing and Producing Educational Signage **Ocean Spray** (Holodiscus Discolor) **Native American Uses** Benefits Cooking Utensils: Ocean spray wood was Wildlife: Attracts bees and butterflies as often used to make utensils like roasting well as provides good coverage for small sticks and skewers due to its ability to mammals and amphibians. withstand heat. Birds: Provides good habitat/shelter and Firemaking: The straight dry stems from the acts as an insect attraction, which plant were used in fire drills to start fires. creates a food source for the birds. Baskets & Mats: The flexible branches were Insects: Great pollen source for insects sometimes used in weaving, intricate baskets due to the centers of the small white and mats were created. flowers containing nectar. Weapons: Wood was used to make clubs and **Unique Features** other weapons due to its durability; this positively helped Native Americans. • Clusters of small white flowers Contains rusty colored seed heads • Distinctive arching branches

Figure 1. The first step in the sign-making process was creating a digital version with the gathered information.



Figure 2. The next step was getting the signs printed and laminated onto the garden signs.

Figure 3. The final step was placing them beside the newly planted native species along the driveway.

## Internship Benefits to Professional and Personal Goals Reflection

I would like to start off by showing my gratitude towards Drea Bowen and One Heart Wild for granting me this summer internship position, along with providing me valuable experience I am able to use career wise once I graduate from Western Washington University in June of 2025. This project not only benefited my professional goals but my personal goal as well, beyond simply being just a graduation requirement.

This project allowed me to gain more experience and learn different techniques in enhancing native plant restoration. While staying close in communication with Drea, I was given free rein in most decisions, which allowed me to explore solutions and develop a strong sense of ownership over the project. I have some past experience within the topic of plant restoration as I actively volunteer with Western Washington University's L.E.A.D. program which aims to enhance the habitat in and around the campus setting, providing the community with ecological, social, and educational benefits. This past experience greatly benefitted a lot of my decisions I was making throughout the process of renovating the entrance driveway. As a senior at WWU, I had the opportunity to apply concepts and theories I had learned in my coursework to real-world situations. This included understanding the ecological roles of native plants, their interactions with local wildlife, and their contributions to habitat restoration. I am excited to bring this experience back with me as I finish off my senior year and apply my newly learned knowledge to a future career within Environmental Studies.

Being able to have the opportunity working within animal welfare and this project allowed me to directly contribute to enhancing the sanctuary's landscape, connecting with my personal goals of contributing to a cause I care for. I've always had a heart for animals and since moving from Las Vegas, Nevada to Washington State in 2014, have grown a deep appreciation for the environment and the ecosystems that surround me wherever I go. I feel a strong urge to contribute my time and knowledge to the beautiful landscapes around me. By doing so, I hope to play a small part in making the Earth a bit greener and more vibrant for future generations to enjoy.

## Selecting Plants and Designing Placement

The process of selecting which native plants would best suit the driveway landscape was one of the most important parts of the project as a plants environmental needs are critical inorder for it to thrive on its own. Woodbrook Nursery has an impressive website that makes plant decisions easy to make due to the information that is provided on each and every plant they have to offer. I started off with viewing the nursery's inventory, prices, and sizes in which they offer the species in, from there I was able to narrow down my options and finalize my potential order list. I carefully took into consideration each plant's environmental needs and where they would thrive best within the landscape, along with driveway. I created a shared google document with Drea providing her the plant species I thought would best fit as well as the species soil conditions, matured height/width, sun/shade levels, and whether or not the plant was deer resistant. Once we agreed on a finalized order list I was able to send it over to the nursery and schedule a pick up day to then introduce the new native species.



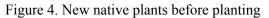


Figure 5 & 6. The plant planning process

When it came time to decide where the new plants would be placed, I started by using labeled flags numbered 1 through 32. This approach made it easier to match each plant species to its corresponding number. As I placed the flags in their designated spots, I used a separate document to keep track of which specific plant corresponded to each number. This method helped streamline the process and ensure accurate placement.

Plant Order List					
Native Plant Species	Quantity & Size				
Pacific Ninebark (Physocarpus Capitatus)	1, 5 gal.				
Ocean Spray (Holodiscus discolor)	1, 3.5" pot				
Thimbleberry (Rubus Parviflorus)	2, 1 gal.				
Pacific Madrone (Arbutus Menziesii)	2, Quart pot				
Deer Fern (Blechnum spicant)	5, 3.5" pot				
Red Flowering Currant (Ribes Sanguineum)	2, 3.5" pot				
Black or Whitebark Raspberry (Rubus Leucodermis)	2, 3.5" pot				
Low Oregon Grape (Mahonia Nervosa)	3, 3.5" pot				
Common Snowberry (Symphoricarpos Albus)	3, 1 gal.				
Trumpet Honeysuckle (Lonicera Ciliosa)	2, 2" pot				
Big Leaf Lupine (Lupinus Polyphyllus)	3, 3.5" pot				
Salmonberry (Rubus Spectabilis)	2, 1 gal.				
Siberian Miner's Lettuce (Claytonia Sibirica)	2, 3.5" pot				
Chokecherry (Prunus Virginiana)	1, 1 gal.				
Cinquefoil/Silverweed (Potentilla Anserina)	2, 3.5" pot				

In total I planted 33 native plants varying across 15 different species, above is an organized table categorized into the native plant species as well as the quantity and size of each plant purchased.

## Driveway Entrance Before & After Pictures



Figure 7 & 8. The photo on the left shows an area along the driveway entrance before any invasive species and unwanted debris were removed. The photo on the right shows the area after invasive species and debris were removed, with native plants newly introduced.



Figure 9 & 10. The photo on the left shows the driveway entrance where a large holly tree had invaded the native landscape. The photo on the right shows the area after the invasive species were removed, with a native plant now taking the place of the holly.

## Driveway Entrance Before & After Pictures



Figure 11 & 12. The photo on the left shows the front entrance of One Heart Wild Sanctuary before invasive species were cleared. The photo on the right highlights the renovated area, with a Pacific Ninebark replacing the Siberian dogwood seen in the left photo.



Figure 13 & 14. The photo on the left shows an area along the driveway entrance before any invasive species and unwanted debris were removed. The photo on the right shows the area after invasive species and debris were removed, with native plants newly introduced.



Continued Before /After Pictures and Educational Signs

Figures 15-20. The photos above showcase some of the new invasive species with their educational signs.

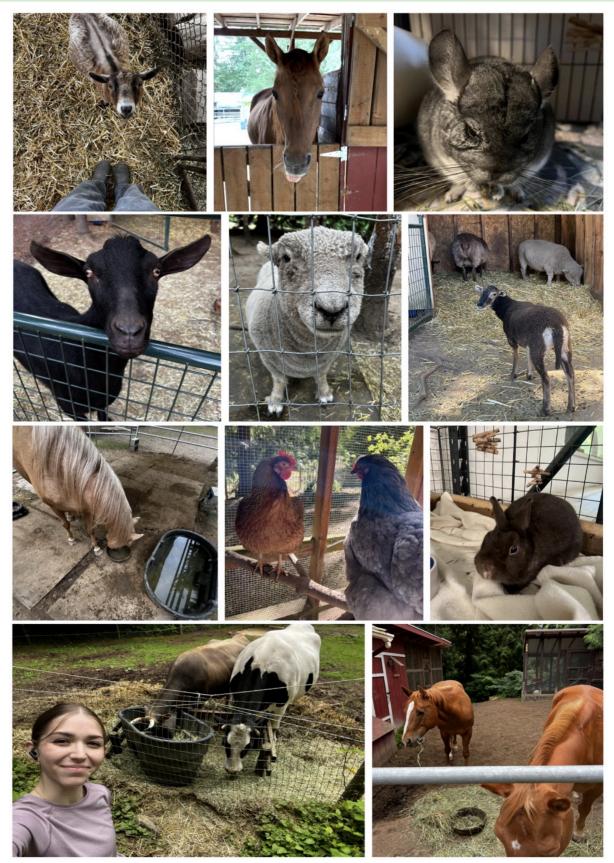


Figure 21 & 22. The photo on the left shows an area along the driveway entrance before any invasive species and unwanted debris were removed. The photo on the right shows the area after invasive species and debris were removed, with native plants newly introduced.

Appendix: Internship Time Log				
Date	Start/End	Hours	Activity	
6/10/24	10 am-11 pm	1 hrs	I toured the property and got a good idea of what I'll be working on during my internship hours.	
6/23/24	9 am-2 pm	5 hrs	I prepped greens for the small animals at the sanctuary and learned how to fully clean each of their cages. I also refilled the chicken's food and cleaned the fluff.	
6/24/24	9 am-2 pm	5 hrs	I cleaned out buttercup weeds, holly plants, and English ivy from the area, along with picking up dead bark and branches around the driveway to tidy up the landscape.	
6/25/24	9 am-2 pm	5 hrs	I spent most of the day digging out the stump of the holly tree the day I cut it prior. After removing, I focused on clearing out the back section of the driveway.	
6/30/24	9 am-2 pm	5 hrs	I cleared out dead leaves along the side of the driveway and removed large branches within the woods.	
7/1/24	9 am-2 pm	5 hrs	I worked on the right side of the driveway primarily focusing on clearing out invasive species. I also helped out with animal care.	
7/2/24	9am-5:30 pm	8.5 hrs	I cleared a large section of the right side of the driveway before getting called in to tend to the 'littles' at the sanctuary. Once finished, I went back to the driveway and was able to pull a large amount of blackberry bushes.	
7/7/24	9 am-2 pm	5 hrs	I spent the day along the sides of the driveway, hand-picking weeds and small sprouts of invasive species.	
7/8/24	9 am-2 pm	5 hrs	I worked near the bathrooms, clearing out blackberry vines and helping a tree by removing the ivy that was wrapped around it.	
7/9/24	9 am-3 pm	6 hrs	I started working on the opposite side of the driveway. I spent most of my time clearing out blackberry bushes and picking up all the dead debris from the ground.	
7/14/24	9 am-2 pm	5 hrs	I focused on clearing out the little nook at the front of the driveway. I removed sticks, holly bushes, blackberry vines, and leaves on the ground.	
7/15/24	9 am-2 pm	5 hrs	I continued clearing out more of the nook at the front of the driveway and also started working on the section by the gate.	
7/16/24	9 am-2 pm	5 hrs	I focused on removing all invasive species within the area before the gate of the sanctuary. I also helped collect the animals bowls and fill up waters.	
7/21/24	9 am-3 pm	6 hrs	I continued working on the section before the hate and spent more time clearing out the last section on the left side of the driveway.	
7/22/24	9 am-2 pm	5 hrs	I spent nearly the entire day clearing out the last section of the driveway.	
7/23/24	9 am-2 pm	5 hrs	I spent the day chopping down and removing another holly tree, this cleared up and brought in a lot of natural light to the front entrance nook area.	

7/28-7/30	9 am-2 pm	15 hrs	Last days cleaning up the driveway!	
8/4/24	9 am-2 pm	5 hrs	I spent my time researching what possible native species would benefit best along the landscape leading into OHW.	
8/5-8/6	9 am-2 pm	10 hrs	I spent more time researching as well as starting the process of creating the educational signs.	
8/7/24	10 am-12 pm	2 hrs	I visited both Salish Trees Nursery and Woodbrook Nursery to compare their inventory, plant sizes, and prices.	
8/11-8/12	9 am-2 pm	10 hrs	I spent my hours continuing plant research.	
8/16/24	10 am-4 pm	5 hrs	Visited Woodbrook Nursery and finalized the plant order to send to the company.	
8/18/24	9 am-2 pm	5 hrs	I spent my hours continuing plant research.	
8/19/24	9 am-2 pm	5 hrs	I spent the day digging random test sites to see where the soil was moist/dry. Calculated where the sunny parts vs shady parts were off the driveway. This helped me with choosing the best locations for the types of plants I was bringing into the driveway.	
8/20/24	9 am-2 pm	5 hrs	I picked up flags and marked out where the plants were going to be placed along the driveway.	
8/25/24	9 am-2 pm	5 hrs	I spent my hours continuing plant research.	
8/26/24	10 am- 2 pm	4 hrs	I numbered the flags as well as correlated which specific plant was going to be placed.	
8/27/24	9 am-2 pm	5 hrs	I started implementing putting my gathered information onto the signs.	
1/3/24	9 am- 5 pm	8 hrs	I picked up the plant order and planted them along the driveway!	
1/4/24	5 pm- 8 pm	3 hrs	I planted and put protective netting around the plants as well as watered them thoroughly.	
1/5/24	3 pm-8 pm	5 hrs	I continued working on planting and put protective netting around plants, as well as watered them thoroughly.	
1/8/24	12pm- 5 pm	5 hrs	I finished putting up the protective netting and watered again.	
1/9-1/10	7 pm-8 pm	2.5 hrs	I spent about an hour watering the plants.	

In total I dedicated around 180 hours to help Drea Bowen complete a long-awaited project that she had been wanting to finish for quite some time. It is my pleasure and honor to contribute my experience and knowledge to help One Heart Wild by renovating the driveway entrance as well as bringing in an educational component for those who may tour the area.



# Appendix: Sanctuary Residents Additional Photos