



# Terra Cognita



## A student's way of understanding the earth

**Welcome to Terra Cognita,** a student-written, environmentally-focused news report on events within our Natural Resources class, the Olympic Peninsula, and the globe.

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**Skills Center  
Natural Resources**

[www.nopsc.org/naturalresources](http://www.nopsc.org/naturalresources)

### Class Newsletter Introduction

By Hannah McNabb



*Natural Resources 1 Class at Morse Creek*

Natural Resources 1, which is one of many offerings at the North Olympic Peninsula Skills Center is focused on providing students with relevant natural resources skills, knowledge and experience. Our class believes that not all can be learned in a classroom and at least once a week we have field days where we practice our newly learned skills in the real world, often gathering information for the community.

### Morse Creek Restoration

By Mary Crabb

Morse Creek restoration aims toward improving salmonid and trout habitat along 130 acres of wildlife area. The project goal is to try to re-activate 1,700ft of channel and flood plain as it existed in 1939, before a dike was installed that confined the creek to steep valley walls and disconnected the creek from 9.3 acres of flood plain. Due to the dike there is a decrease in population of fish that once were there. For example, the most dramatic change was the pink salmon from 10,000 in the early 1940's to less than 200 now.

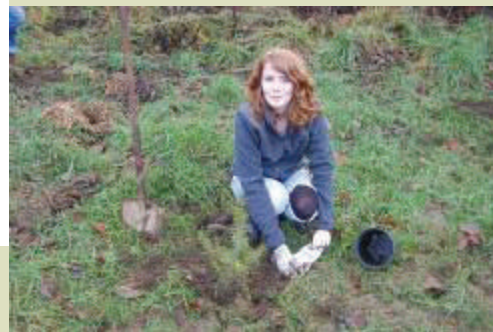
The Morse Creek Riverine Restoration Project plans to try and restore the natural habitat of the fish in hopes of having the numbers of fish come back up to their original spawning numbers. To try and re-align the creek, 19 engineered log jams were installed. The log jams were placed to provide new habitat for juvenile and adult salmon. The jams will slow the current as runoff pours from the Olympic Mountains. With time the curvature of the creek will increase and create favorable habitat for salmon.

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In this quarter's paper we will be discussing La Niña on the peninsula, the Elwha Dam removal, Morse Creek Restoration Project and how to find jobs in natural resources.

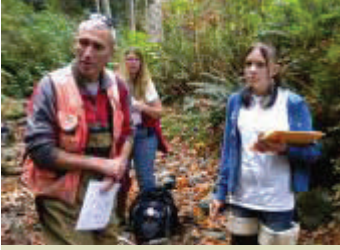
This fall we started off first semester by taking on a new responsibility as Streamkeepers for Valley and Tumwater Creeks. We collected the physical, chemical, and biological health of each stream and contributed the data to the restoration of each creek. We helped Lower Elwha Klallam Tribe conduct adult salmon spawning surveys and created our own GIS maps of the revegetation work we did for the Morse Creek Restoration Project. Now we are finishing up the semester by learning about people and policies. Have any questions? Contact: [dlieberman@portangelesschools.org](mailto:dlieberman@portangelesschools.org)



*Hannah McNabb planting trees on Morse Creek*

The North Olympic Salmon Coalition is working hard to make this restoration possible and salmon have actually been spotted, showing their efforts are paying off. In the fall of 2010, The Skills Center Natural Resources 1 class planted trees and made geographic information systems to help with the restoration efforts. For further information on this restoration project you can visit [www.nosc.org](http://www.nosc.org).

## Students at Work



*Students monitored salmon restoration efforts on Valley Creek with Lower Elwha Klallam Biologists.*

## River Poetry

By Duane Riggins

From the flowing  
pools to the rocks as  
hard as nails,

none compare to the  
magical snail for so  
they say,

slow and steady wins  
the race, as the same  
for these good deeds

we carry on this fine  
calm Autumn day

## River Poetry

By Anonymous

Hidden in the city a  
flow of life.

Surrounded by trees  
hidden by the hills.

# Elwha Dam Removal By Zach Thomas

## The channel at Lake Mills seems to be doing its job.

In October 2010 the Bureau of Reclamation let out water and lowered Lake Mills 18 feet in 9 days. Due to the dams being in place, sediment has built up behind it. In fact, there are more than 13 million cubic yards of sediment stored there. Some of the sediment is expected to wash out to the Strait of Juan de Fuca, and the rest is possibly going to be dispersed throughout the river. (Peninsula Daily News, November 2010)

The restoration plan for the Elwha River involves taking out both dams. People have high hopes and the Bureau of Reclamation, Lower Elwha Klallam Tribe and National Park Service are attempting to restore the salmon habitat as well as a more natural overall river ecosystem. It is thought that the removal will bring cultural, spiritual, and economic healing to The Lower Elwha Klallam Tribe.

The dam removal is expected to repair salmon habitat for many years to come even though we may not see the positive changes for a while. Right now, due to the dams being here, salmon don't have a way to get up river for spawning purposes. After the removal it is thought that the river will be a great place for healthy salmon habitat, but we will see in the years to come. Professionals and student scientist have been working on all parts of the Elwha River ecosystem. Learn more at [www.nps.gov/olym](http://www.nps.gov/olym).



*It is expected that the dam removal will be finished in March, 2014.*



### How to Find a Job in Natural Resources

How would you find a job in natural resources? Go to the job website called Olympic Peninsula Natural Resources Careers: [www.opnrc.org](http://www.opnrc.org).

It is important to have a job so you can pay your house payments and buy groceries. If you need help finding a job in natural resources I can help you.

On the Olympic Peninsula you have the opportunity to find a job in natural resources. Also, there are several education programs to help you get prepared. I like forestry but you could be a biologist or maybe an environmental consultant. You could even work at being a soil specialist or a GIS analyst. To get these jobs, you have to spend some time in school. The North Olympic Peninsula Skills Center has classes for students ages 16-21 for career training in natural resources jobs. Peninsula College has programs in natural resources management and fisheries. You could get a certificate or an Associates Degree, which can be transferred to WWU-Huxley College of the Environment on the Peninsulas on the Peninsula College campus. Hopefully with this information you can find a job in Natural Resources, and start an exciting new career.

## La Niña Year

By Angel Shaw

**Days are greyer and wetter than usual, can you tell?**

This is because La Niña is visiting us this year. La Niña means the sea surface temperature across the equatorial Eastern Central Pacific Ocean will be lower than normal by 3-5 degrees Celsius causing weather changes around the world. So look forward to more rain, floods, snow and cold weather.

This is a picture of the Morse Creek restoration area, where flooding is happening because of heavy rains and more snow melt which is a result of La Niña. However, the log jams seem to be holding up well.



**Read more about Morse Creek restoration in Mary's feature article in this newsletter.**

## Skills Center Natural Resources

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Skills Center Natural Resources offers a variety of hands-on skills training options for students 16-21 who do not have a high school diploma. Enrollment is open now.

### Meet the Students: Duane Riggins

Duane picked this class because he thought it was more interesting than the others and he loves being outside and helping the environment. He is excited about anything the class is doing next and our field days we have coming up. His favorite part of the class is getting to be outside and helping the environment.



Duane moved from Issaquah to Sequim and then Port Angeles when he was sixteen. He says his favorite part about Port Angeles is being right next to the Olympic Mountains and the Strait of Juan

### Meet the Students: Lexi Charles

Lexi chose this class because it wasn't like any other class available. She loves the hands on work, being outside, and of course, helping the environment. She is excited about the future trip to Neah Bay where we will see Cape Flattery and the surrounding area. Her favorite part of our class is being able to work with her hands and the experience she gets from it. She was born in Port Angeles and then moved back to Port Angeles four years ago. Lexi says she did not like the rain here but enjoys being with her Native tribe.



## Streamkeepers Team Leaders for Valley And Tumwater Creeks



Streamkeepers Celebration in Skills Center Room 206

The Natural Resources Class of the North Olympic Peninsula Skills Center has joined forces with the Streamkeepers of Clallam County to monitor county streams and creeks.

As team leaders for Valley and Tumwater Creeks, duties include coordinating and completing water quality data collection four times per year and training new Streamkeepers who work on Valley and Tumwater. In addition to their responsibilities, students also

worked with Lower Elwha Klallam Tribe biologist Mike McHenry to determine the success of the early-stages of Valley Creek Restoration.

The work of a Streamkeeper continues year-round, and Skills Center Natural Resources is looking for more students to help with spring monitoring and other special projects.

## Natural Resources I Class Preview: Upcoming Winter Units

Forest Ecology and Timber Management  
Geology and Soils

Students will be working with Reed Wendel of Green Crow during both units to carry out field studies in local forests. Students will design and conduct independent projects.