Terra Cognita

A student's way of understanding the earth

Spring 2013 Volume 3, Issue 3

Welcome to Terra Cognita,

a student-written, environmentally-focused report on events within Skills Center Natural Resources Program, the Olympic Peninsula, and the globe.

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Skills Center Natural Resources

www.nopsc.org/naturalresources

Editing Terra Cognita

By Stefanie Colliton

Stefanie Colliton planting a tree at Valley Creek 1.0

As a Natural Resources 2 Intern and a Skills Center student, one of the most exciting and concrete projects I get to tackle is editing the Terra Cognita newsletter. I have always loved writing, and I have found that editing is definitely a category where I utilize all of my focus and understanding.

My job as editor entails me to look over the student pieces that will be printed in the newsletter, as well as adding photos and rearranging the text to make room for new articles. When given an article I thoroughly look over every detail and sentence, making certain that the words flow smoothly and that the given information is clearly distributed, as to not confuse the reader. I believe that if you are writing something and you have a lot of sources and information, it is mandatory to make it easygoing and interesting. In my opinion, there is nothing worse than having to read material that is overly stiff and serious.

I am very honored to have this position for Terra Cognita, and my goals are to keep my editing sharp, proficient, and reasonable. If possible, I would also like to enlighten other Skills Center students with helpful writing tips that they can use for future articles. It will be fun and exciting for me as well, because I hope to be a writer someday and think that this internship will help advance my path in that direction.

ROV at Franklin Elementary

By Tara Morrow

ROV students Madison Kuss, Cole Urnes and Austin Bray enjoyed sharing their ROV with elementary students and parents during Science Night at Franklin Elementary. Students showed off the new underwater camera by walking around the crowd with the video camera and projecting images of people on a small monitor. Austin demonstrated how the camera performed underwater by dropping it in a tank of sea stars brought in by Feiro Marine Life Center. Lots of engaging conversation was shared about the design process of the ROV and the mission.

ROV students discuss their plans

The ROV group has worked every weekend during the past month and is getting closer to putting the ROV in the Port Angeles Harbor. The group has shared ideas on developing a control box for three separate motors. A variable speed motor has been ordered to allow greater control of the ROV. As design plans become more complex, more parts are needed and expenses increase. Students have composed a 'wish list' with items like tools and a soldering kit at the top. On May12th we are participating in a fundraising event to offset some of these costs. Ford's Drive One 4 UR School will help raise funds for the PAHS Science Department, Science Club and ROV group. Please come out and support 'Drive One 4 Science' and support local youth in science. See more details on page 3 of this newsletter and a student poster on page 4.

OCNMS Crew Conducts Surveys on Elwha Beaches

Conan McCarty and Jenna Matheny conduct a kelp-rock survey

Olympic Coast National Marine Sanctuary crew

Bones of a dead bird at the West Elwha Beach are surveyed, recorded, and then photographed

Large woody debris on the West Elwha Beach

Read about published beach survey student article on page 4

Spotted vs. Barred Owls By Karsten Turrey

The spotted owl is an endangered species that has become endangered from years of their habitat being logged away. The owl population crash began in the 1980s. In effort to save the species and their habitat, logging in over 20 million acres of northwest old-growth forest was slowed and in some places, banned. The spotted owl crisis turned out to have the largest impact any animal had had on habitat preservation (www.peninsuladailynews.com/article/20120101/news/301019980/snowy-owls-sweep-into-peninsula-from-arctic-to-the-delight-of).

Am I Seeing Spots or Bars?

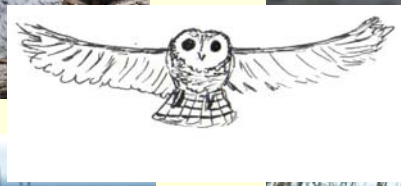
Around 20 years after the habitat preservation efforts, a new problem for the endangered spotted owl erupted, which was the presence of a much larger and more vicious barred owl. The barred owl is on average 20 % bigger than the spotted owl, and has begun to migrate into the northwest and is taking over the spotted owl's habitat. Since the spotted owl can only live in old-growth forests and the barred owl is compatible with other forest types, the barred owl should have a lot of habitat already. Nevertheless, it is fighting the spotted owl and pushing it out of its habitat. In fact, barred owls have been known to actually eat the smaller and weaker endangered spotted owls. (Smithsonian January 2009)

Snowy Owls on Olympic Peninsula

The snowy owl is a relatively large owl and can grow to a height of 25 inches tall with a wingspan of up to 5 feet! These owls will eat anything from mice and lemmings to songbirds and even medium-sized geese. They are very bright and brilliant birds that are mostly white with small brown spots or stripes (http://www.defenders.org/snowy-owl/basic-facts).

History in the Making

Recently, there have been sightings of the very rare snowy owl on the Olympic Peninsula. Sightings have been confirmed in Sequim, with the first sighting of 2012 on November 9th. These owls migrate to the Olympic Peninsula from north of the Arctic Circle on a three to seven year rotation. For the first time in documented history, the snowy owl has migrated here two years in a row. In November 2011, there were at least 6 different snowy owls spotted on the Olympic Peninsula. As you may already know, most owls are nocturnal hunters (meaning they hunt at night). The snowy owl however, comes from north of the Arctic Circle, where in the summer, the sun does not set, making them diurnal (meaning they hunt in the day). The snowy owl is set apart from other owls because of this. It can also be dangerous for the owl because during the day, there are predators they need to watch out for, such as bigger birds of prey or illegal poachers. I think it would be very exciting to get to see this graceful bird in its natural habitat (Information gathered via email from Dow Lambert).



Four snowy owl pictures courtesy of Dow Lambert; spotted owl sketch courtesy of Hannah McNabb

In the Name of Science By PAHS and NOPSC Staff Members

As you read about on page one, Port Angeles High School Science Club and Natural Resources Options have big plans to go deep. However, the equipment for the ROV project is costly, and school funding is not sufficient for such things. Therefore, we are having a Drive One for Science day where you can help raise money by simply sitting behind the wheel of an automobile for a few minutes.

The Drive One for Science event is from 10am to 4pm on Sunday, May 12 in the Wal Mart parking lot. It is a fun event as people get to drive new cars. The Price Ford dealership will have trucks, hybrid cars, new SUVs and some Mustang GTs. There is no pressure from Ford. According to Port Angeles High School science teacher John Henry, "we have run the event for several years for different groups and nobody has ever gotten a call or email from Ford unless they asked to be contacted. Ford has been very gracious donating the cars and staff to support our schools."

The benefits to this event can be great. For example, if we can get 300 people to come and drive a car we can earn up to $6000 for the Port Angeles High School Science Club and Science Department.

That is Mother's day, so we hope it is a good day for a drive. We are hoping to get people to drive and also some to help run the event. We need about 30 adults and 30 students to pull it off; we will run two shifts, morning from 10 to 1 and afternoon from 1 to 4. We need to confirm a group of helpers very soon. Please contact John Henry at jhenry@portangelesschools.org or 360-477-0065.

At left, ROV students and Randall Walz of Feiro Marine Life Center demonstrate one of the ROV models—more equipment is needed for future prototypes to go underwater in Port Angeles Harbor to monitor eelgrass

The underwater ROV camera is demonstrated underwater

Unclean Water By Kelsey Mundell

Did you know that river systems provide an estimated six to seven trillion dollars in services to humanity every year, but the hundreds of billions of dollars spent on engineering systems impairs those services for short-term gain? Some people could interpret this as the following; society would rather destroy our waters by pollution, dam building and conversion for a quick dollar instead of spending less than five percent of that yearly income on improving and restoring our waters. Others might see this as using our resources to meet growing human needs in tough economic times. There are many concerning factors that contribute to our rivers being in crisis such as pollution and dam building.

According to a recent study, due to the lack of investments and appropriate care for nature, we now have a threatened water supply for more than five billion people. The study, which you can find at this link: http://www.globalwaterinitiative.com, made it clear that the richer countries imposed greater threats to our global water supply. Every year, approximately 3.4 million people die due to polluted or otherwise unclean water; this is almost the equivalent of the entire city of Los Angeles! If we continue to pollute our water supply we will eventually not have a sustainable healthy source. The chemicals that pollute our waters can cause birth defects, mutations of animals, and even death. Clean water is vital for a healthy life, and you cannot survive without it.

The Global Water Initiative is a coalition of seven international organizations with a plan to change the landscape of water, sanitation and hygiene services. Organizations like these are working hard to reverse the outcome of our pollution habits. It is our responsibility as Earth's people to protect our environment and cherish our resources. http://www.globalwaterinitiative.com

Inadequate water sources (image: http://www.globalwaterinitiative.com/index.php/our-work/west-africa/)

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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!

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Enroll in Natural Resources Program Today!

Blurb of the Beaumont (Historic Cabin at ONP Visitor Center) by Stefanie Colliton

A piece of Port Angeles history; if only these logs could talk! (image: http://www.flickr.com/photos/jstephenconn/7604875914/)

The Beaumont Cabin is one of the most fascinating historical establishments on the North Olympic Peninsula, with one of the most interesting stories of early homesteading behind it, including the life and legacy of Elliot Beaumont and his family. The cabin currently resides at the Olympic National Park Visitor Center, where it was permanently placed after being moved from Mt. Angeles Road in the early1990s.

My partner Courtney Wilson and I plan to reopen the cabin to visitors and spruce up the furnishings and atmosphere, while giving tours and explaining the lifestyle of the Beaumonts, as well as general information about early North Olympic homesteading. We will also shine light on women's roles in the community and how they became a strong part of developing Port Angeles. The cabin will open to National Park Visitors every Sunday beginning mid-April 2013.

Natural Resource Student Article Published Widely on Blogs

Karsten Turrey's Elwha area kelp rock survey article is now published on two well-known blogs

Visit these two sites and search for 'Something Kelpish'
* Hands on the Land: www.handsontheland.org/blog
* Coast Nerd Gazette: www.coastnerd.blogspot.com