News From Feiro Marine Life Center

Volume I Issue 4 April 2011

Special points of interest:

- Elephant Seal Behavior
- A free, safe way to cook
- How can YOU get involved at Feiro this spring?
- Interesting creatures explored at Feiro

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Spring Volunteer Training

New from Feiro Marine Life Center… It's…

Tidepool Explorations 2011

Now, you may think you know all you need to know about the marine life out here in the Pacific Northwest, but from my experience, there is always something new to be learned, something new to be seen when exploring the life below the surface. As follows, starting on Wednesday April 6th, Feiro Marine Life Center will be beginning a six session exploration of marine life.

Feiro staff naturalist, Bob Campbell, will be teaching these classes which includes a closer look at the different critters we can find in our waters, a hands on beach seine and plankton tow. Once you learn all this terrific information, you will be well on your way to becoming a naturalist. We really want our volunteers to feel comfortable answering questions when they are working on the floor. Thus, we will be doing our best to go into detail exploring these phyla by phyla. In addition to the sea life, the classes will cover a look at the Elwha Dam Removal and River Restoration project from the nearshore environment's point of view.

Burt having a blast cleaning tanks!

Classes meet Wednesday evenings, beginning April 6, from 6-8pm, at the marine life center on the City Pier in Port Angeles. This training meets the requirements for participants to volunteer at the center. To attend these sessions, please visit the peninsula College's Community Education Program website at http://pencol.edu/classes, or contact Feiro at feiromarinelifecenter.org or by calling 417-6254. A $20 registration fee is required to participate.

On April 13th, we will have a volunteer training specific to our 5th grade NOW science program. If you are interested in helping out during the watershed walk, please join us from 9:30-2pm. Also, be on the lookout for a sign up sheet on the volunteer table to attend these school filled days!

Volunteer Exchange with Shaw Ocean Discovery Centre

Twelve volunteers from Sidney, British Columbia will arrive in Port Angeles about noon on Monday, April 18. They want to visit the Feiro Marine Life Center and the Olympic Coast Discovery Centre to learn how we work with school groups; and they want to explore Port Angeles before leaving home the next afternoon. Janet Lamont and Deborah Moriarty are working on the schedule for their visit and are planning a potluck social Monday evening about 6:00pm. Feiro and OCDC volunteers are invited to bring hot dishes, salads or beverages; our guests will provide desserts. If you are able to join us for the evening, please let Deborah or Janet know and tell us what you plan to bring. If you want to find out more about Shaw Ocean Discovery Centre (that's Canadian for Center) go to: www.oceandiscovery.ca/

Junior Oceanographers

Junior Oceanographer Students - meet our future marine biologists!

This summer Feiro Marine Life Center along with the Olympic Coast Discovery Center staff will once again take on the task of leading a Junior Oceanographers summer camp. If you can think of a child who is curious about the ocean and life under the water, this camp is perfect. Join us on the City Pier in Port Angeles this summer for a week of ocean exploration and education. Not only will your children have a blast exploring the ocean, but they will be learning valuable information about our marine environments. Plus, next time you visit the beach you will have an up and coming naturalist with you!

Students will join Scuba Steve and participate in a variety of activities which will keep them entertained all day. Activities include:

- Beach Seine
- Plankton Tow
- Habitat Tag
- Finger Painting/Art projects
- Intro into Scuba diving

We will be running these camps for four weeks this summer, each age group running a different week. The dates for the classes are as follows: July 18-21 (5-8 yr olds), July 25-28 (9-11 yr olds), August 15-18 (5-8 yr olds) and August 22-25 (9-11 yr olds). The cost for the class is $95/child and partial scholarships are available.

A New Addition

By Alex Hirsekorn

"Keep your eyes open when exploring Feiro's tanks. You never know what you may find!"

Fernald Brooding Anemone

Well… Maybe not "new" in the strictest sense of the word. For the last year or so we've had three small anemones in the acrylic tank next to the entrance but we haven't been able to figure out what species they are until quite recently. Since we had no record of where the animals were collected our only clues were color (green), and size (the largest is about 2 inches in diameter).

Based on the color, many of us thought they might be very small Giant Green Anemones - *Anthopleura xanthogrammica* – unfortunately the tentacles and column just didn't look quite right; additionally these guys seem to be thriving and Giant Greens have never done very well in our facility. We also thought that they might be small *Urticina spp.* of some sort; the tentacles were right but the color, column, and mouth weren't. We even considered some fairly oddball species but for every matching trait there were always two or three that didn't match; clearly, it was time to give up.

Then we got a break; our mystery anemone had babies and did so in a way that pointed to its being one particular species.

Introducing the Fernald Brooding Anemone - *Epiactis fernaldi*! We've had other types of brooding anemones in the past – *E. prolifera, E. lisbethae,* and/or *E. ritteri.* The difference is that in all those species the offspring cluster on the parent's column for weeks or even months while in *E. fernaldi* the kids immediately go off to seek their fortune. In the attached photo you'll see a juvenile that's in the process of moving away. The juvenile pictured is the tenth (at least) member of the brood and the sharp eyed observer can see several of its siblings on various rocks and pebbles in the vicinity of the parent's home. [Sorry, they're not visible in the photo; you'll have to look in the tank!]

E. fernaldi was originally described in 1985 by Daphne Gail Fautin (California Academy of Sciences) and Fu-Shiang Chia (University of Alberta). The two were working out of the UW's Friday Harbor Lab at the time and *E. fernaldi* was named for the late Dr. Robert Fernald who was a University of Washington Professor of Zoology and director of the Friday Harbor Lab.

When the paper was written *E. fernaldi* was described as being found only on San Juan Island (and some literature continues to repeat that) but subsequent observations have been made at numerous locations on the Pacific Coast.

The moral is: Whether you're looking at tide pools or Feiro's displays, keep a sharp eye and an open mind; you never know what you might find!

I'd like to thank Dr. Ronald Shimek for his help in confirming our identification and for supplying additional information about the range of this anemone.

Cooking—Solar Style

Hamilton students constructing a pizza box solar cooker

I don't know about you, but when I filled up my car with gas today, I could hear my wallet crying. I cripple my bank account monthly writing out my utilities check, and fear for future gas prices. Consequently, my interest in alternative energy sources keeps growing, and luckily I am directly exploring these ideas with the 5th grade classes.

As a part of the new 5th grade solar education program that I have been running, I work with the students on making solar cookers. While the students most likely find this activity a fun way to learn, there are very real life applications of solar cookers. Solar cookers range from the professional style, to simple do-it-yourself style. They have one thing in common—they use the energy from the sun to cook food. In the 5th grade classrooms, we have been constructing solar cookers out of pizza boxes, shoe boxes, aluminum foil, newspaper and saran wrap. How simple is that!? Now, honestly, the Pacific Northwest will never be depending on solar cooking for meals, but it is an interesting concept to explore. Instead of turning on the oven, or firing up the grill, one can simply place the solar cooker outside, set up your food, walk away and, like magic, in a few hours the food will be done!

However, in other countries where people are dependent on burning wood or dung as fuel, solar cooking can be a life saver. By using the sun's energy to cook instead of fuel, these families are able to save money and purchase less fuel. Instead of making long trips to gather fuel into dangerous areas, families can rely on the sun to cook food during the day. In areas where water sources may not be clean or safe, solar water pasteurization has saved millions of people from illness or death. Smokey cooking fires which can irritate the eyes and skin are replaced by smokeless cooking techniques.

Poverty stricken families worldwide spend up to 25% of their income purchasing fuel to cook food. With a solar cooker—the fuel is sunlight. Sunlight is free, abundant, and clean. With solar cooking, the money once spent on fuel can be put to other uses such as buying healthy food, providing education for children, or for medical needs.

Check it out—you may find a new way to grill out this summer! Teach friends and family a new method of cooking—that saves our planet!

Solar Cookers take advantage of one of our greatest, and free resources, the sun!

Elephant Seal Molting

We have another elephant seal visitor molting on Hollywood Beach. Elephant seals are named for the large proboscis of the adult males which resembles an elephant's snout. While these seals may not be quite as large as their namesake, the females can grow to be 10 feel long, and up to 1,500 lbs. The males can grow to be 16 feet long, and up to 4,500 lbs. That is pretty massive!

Elephant seals spend up to 80% of their lives in the water. When on land, they move by flopping on their belly. They haul out during the year to molt, a process where the outer layers of skin and hair renew themselves. During this time, the seals rest in a safe place on land. It is extremely important not to stress the seals out during the molting process by crowding or interacting with them. These large seals spend up to 2 hours diving underwater at a time. It is believed that they eat deep-water, bottom-dwelling marine animals such as ratfish, swell sharks, spiny dogfish, eels, rockfish, and squid.

Female seals usually molt in the early spring, followed by juveniles who molt in the summer and males who molt in late summer. However, there are some individuals who can molt out of season. Thus, we can't be sure if our seal friend is male or female without taking a close look at the belly side. When looking here, we can identify females by the presence of mammary teats, and males by the penile opening. We can distinguish between females and juveniles by size.

Elephant seal that has hauled out onto Hollywood Beach to molt.

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Feiro Marine Life Center is a educational and scientific nonprofit organization whose goal is to educate the public about marine life in the Pacific Northwest. Students from the area travel to FMLC to receive hands on education introducing them to the life beneath the water. They explore different aspects of marine life, abiotic factors influencing the ocean, and learn about the importance of conserving the ocean and other natural resources. In addition to programs aimed at student groups, the public values FMLC as a unique educational experience on the city pier.

feiromarinelifecenter.org

Upcoming Events at Feiro Marine Life Center

April 6th– May11th "Tide Pool Explorations" begins April 6th. Offered through Peninsula College, it is a continuing education program where Bob and area experts will present marine life phyla by phyla. Also, there will be an overview of the Elwha River Restoration and the Nearshore Connection. These programs will begin on April 6th, and run for six sessions on Wednesday evenings from 6-8pm.

April 13th Volunteer Training for our spring 5th grade NOW science program. Volunteers who want to help out during our 5th grade program are encouraged to attend. From 9:30-2:00.

April 16th This year's Port Angeles AmeriCorps team is putting together an Earth Day fair to celebrate our wonderful planet, and encourage ourselves to keep it clean and healthy. The fair will be comprised of booths sharing information about different resources in the community, solar and wind energy education, reusable bags and other 'green' practices. While the plans are still hatching, rumor has it that there may be music and entertainment as well as many arts and craft activities sure to please our younger audience. Come and support our earth!

Image from the Coastal Cleanup Project

April 21st 6:30 pm Volunteers and staff will be enjoying a fun filled fish painting extravaganza at Aglazing Art Studio downtown Port Angeles. We will have a variety of fish in a price range from $5-$25 to fit everyone's budget. Come join us for after hours fun with creativity and a bit of wine and snacks!

April 23rd The earth day fun continues with a beach clean up! Members can gather in Port Angeles to help clean our beaches, or travel out to the west coast to help with a costal cleanup. For more information and to help with this project please visit http://www.coastsavers.org/washington.html