



NOAA Teacher at Sea
Kristin Joivell
Onboard NOAA Ship *Fairweather*
June 15 – July 1, 2009

NOAA Teacher at Sea: Kristin Joivell

NOAA Ship *Fairweather*

Mission: Hydrographic survey

Geographical Area of Cruise: Shumagin Islands, Alaska

Date: Wednesday, July 1, 2009

Weather Data from the Bridge

Position: In transit to Kodiak, Alaska

Clouds: mostly cloudy

Visibility: 10+ miles

Wind: 7 knots

Waves: less than 1 foot

Temperature: 10.5 dry bulb

Temperature: 8.7 wet bulb

Barometer: 1026.5

Science and Technology Log

The NOAA training materials define hydrography as “the science of measuring and describing the physical features of the navigable portion of the Earth’s surface adjoining coastal areas, with special reference to their uses for the purpose of navigation.” The definition describes the project that I’ve been helping with on the *Fairweather*, but it doesn’t mention everything that is involved in the journey or all the components that must come together to have a successful project.



To me, the beach on Big Koniuji Island looks very similar to the beaches at the Outer Banks, North Carolina.

Different departments on the ship

all contribute to the project. Though each department has its own focus, they are all essential to the ship’s well being. The officers all work together to navigate the ship and decide how to gather the data without putting anyone at risk. The survey team gathers, processes, and analyzes data. The deck department contributes to the upkeep of the ship. Engineers make sure the ship’s

engines keep it moving through the water. The electronics technician makes sure that the many computer systems are working correctly. The stewards make sure that everyone's food needs are met. It's up to everyone on board to contribute in their own way to make the journey significant and meaningful.

A great movie from NOAA that describes the history of surveying in the United States is called "The Surveyors: Charting America's Course" and can be watched online at the following website: <http://celebrating200years.noaa.gov/surveyors.html>. The first scene shows the ocean waves and a quote from John F. Kennedy that states, "Knowledge of the ocean is more than a matter of curiosity. Our very survival may hinge upon it." I was encouraged to watch this movie on one of my first days onboard and it really set the stage for the work I was to help with. The work that I assisted with on the *Fairweather* is going to be used to help ships travel safely through previously uncharted or incompletely charted waters. I gained a respect for the crew's mission from the first day on and am proud that I play my small part in it.

Personal Log:

One of the best things about being on this ship is the opportunity to explore new places. But, I wasn't expecting to be able to see a beach and swim in a lake in Alaska! Before leaving the Shumagin Islands for Kodiak, we had the opportunity to visit Big Koniuji Island one final time.



TAS Joivell displays some of the kelp found on the beach at Big Koniuji Island. The tube like part is full of air and the leaves feel like plastic.

To me, the beach at Big Koniuji Island looks similar to the beaches at the Outer Banks, North Carolina because it has white sand, dunes, and driftwood. I went beach combing and found sand dollars and kelp all over the beach. I collected some sand to add to my collection at home. Some brave crew members even went swimming in the ocean near the island!

One of the crew knew about a lake on the island and organized a hiking trip to visit it. We hiked over a ridge through some thick brush and weeds to get to the lake, but it was worth it. The lake water was so clear you could see the bottom from almost everywhere. The water was also much warmer than the ocean which encouraged more people to swim in it. I tried out the swimming conditions and soon found that the entire bottom of the lake was covered with at least 2 feet of muck. Every time you tried to move your arms through the shallow waters of the lake, you hit a pile of cold,

gooey muck. Even though it was kind of disgusting, the swim was still worth it. I most likely will never be back to the Shumagin Islands to try it again, so this was my one chance to swim in a lake on an island in Alaska. This lake is unnamed, so I am naming it Muck Lake in honor of the piles of muck at the bottom.



You can see the lake on Big Koniuji Island on the right. I am calling it “Muck Lake” because of the large amounts of sediment on the bottom. You can see a small part of the sandy beach off to the left.

Create Your Own NOAA Experiment at Home

NOAA ships travel to many different places in their journeys. There are countless opportunities listed on the internet where you can apply to travel to different countries for volunteer work. One organization that I have noticed is the World Society for the Protection of Animals. Their website has a section about volunteering abroad where you can do work with animals in many different countries. The Peace Corps is another organization where there are opportunities to do worldwide work, but you need to be able to dedicate at least 27 months to the experience. Working with AmeriCorps is similar to the Peace Corps, but the work is conducted in the United States for variable amounts of time. Habitat for Humanity has sites both in the United States and internationally. Earthwatch Worldwide works with scientists to solve international problems. Some of these programs cost money and some are free, but all do important work around the world. If you have the time to dedicate to any of these opportunities, you should investigate further.