



**NOAA Teacher at Sea
Kathryn Lanouette
Onboard NOAA Ship *Oscar Dyson*
July 21 – August 7, 2009**

NOAA Teacher at Sea: Kathryn Lanouette

NOAA Ship: *Oscar Dyson*
Mission: Summer Pollock Survey
Date: Wednesday, July 22, 2009

Weather Data from the Ship's Bridge

Visibility: 3 nautical miles
Wind direction: 288.27 degree (N, NW)
Wind speed: 20 knots
Sea wave height: 8-10 feet
Air temperature: 7.4 °C
Seawater temperature: 6.8 °C
Sea level pressure: 29.3 inches Hg and rising
Cloud cover: 8/ 8, stratus

Science and Technology Log

It will take about 2 ½ days of non-stop sailing until we reach the fish survey starting area. Before that research gets underway, I've been spending a lot of time getting to know my way around the



Looking back on Unalaska, AK

ship and learning about life at sea. My favorite part of the ship to spend time has been the bridge, the navigation and operations base for the entire ship. From the bridge, I've been able to learn more about the weather and birds that live at sea. Every hour, the weather is recorded using the boat's instruments. This weather is then relayed to NOAA's National Weather Service. Using the *Oscar Dyson's* data, the National Weather Service is better able to predict and model weather patterns, increasing their forecast's accuracy for this remote region. As the waves kicked up a lot on Tuesday evening, I learned about the Beaufort Scale of Wind Force.

Using estimated wave speed and wave height, you can calculate the severity of the weather. On Tuesday evening, we were sailing through a Force 7 on the scale, a gale with wave heights of 13.5 to 19 feet and a wind speed of 28-33 knots (aprox. 35-37 mph) with gusts up to 45 knots

(aprox. 50 mph) Luckily, the waves have calmed down a lot by Wednesday evening because the lower pressure system has passed us to the east.

In addition to fisheries research, there are two bird observers from the U.S. Fish and Wildlife Service (USFWS). For almost 16 hours each day, they observe and record information about the seabirds that they see flying within 300 m of the boat. Seabirds spend most of their lives living out on the open seas, looking for food. A lot is known about their cliff nesting areas by the water because these locations are relatively easier to access. Much less is known about their time spent at sea. The information gathered here helps scientists learn more about the birds that inhabit the Bering Sea. By looking at their data from prior years, they can see how different birds are affected by human caused events (like oil spills, global warming, and commercial fishing) and non-human caused events like volcanic eruptions. All their research is part a bigger research program called the Bering Sea Integrated Ecosystem Research Program (BSIERP). As one seabird was flying close to the boat, I noticed it had a slender tube on top of its bill. It turns out that this bird was a Northern Fulmar, part of a group of birds called “tube-noses.” This tube enables the birds to drink saltwater, a cool adaptation to life at sea.



A Northern Fulmar (Courtesy Aaron Lang, USFWS)

Personal Log

On Tuesday afternoon, as we left the protected bay of Dutch Harbor, we started sailing out towards the more open waters of the Bering Sea. It was a strange feeling to see the Fox Islands, a smaller part of the Aleutian Island chain, slipping out of sight. Our next chance of seeing land will be as we get closer to Russia. Even then, it might be too cloudy. It is strange to think that I might not see land again for over two weeks.

By 9pm on Tuesday night, I was sick as a dog, “hanging over the rails” if you will. But with some sleep and seasickness medicine, I am feeling a lot better today. Seems I have found my “sea legs” as food seems appealing once more and the boats rocking is becoming more of a lulling motion than a lurching one.



Here I am practicing wearing my immersion suit.

Around noon on Wednesday, we had our first fire drill and abandon ship drill. As part of the drills, we had to practice putting on our immersion suits. In case we had to abandon ship for any reason, these suits would keep us warmer and more visible. I felt a bit like Gumby!

Animals Seen

Northern Fulmar

Black Legged Kittiwake

Tufted Puffin

Horned Puffin

Black-Footed Albatross

Laysan Albatross

Murre

New Vocabulary

Knots – units of speed, nautical miles per hour

Nautical mile – 1.15 statute (regular) mile