



**NOAA Teacher at Sea
Rebecca Himschoot
Onboard NOAA Ship OSCAR DYSON
June 21 – July 10, 2007**

**NOAA Teacher at Sea: Rebecca Himschoot
NOAA ship OSCAR DYSON
Mission: Summer Pollock Survey
Day 14: July 4, 2007**

Weather Data from Bridge

Visibility: less than 1 nm (nautical miles)
Wind direction: variable
Wind speed: light
Sea wave height: 4 feet
Swell wave height: 2-3 feet
Seawater temperature: 7.6°C
Sea level pressure: 1020.4 mb (millibars)
Cloud cover: stratus

Science and Technology Log: Special Studies

Bird observer Tamara Mills has to keep track of many things. From her post on the bridge of the OSCAR DYSON, Tamara locates and identifies multiple species of seabirds around the ship, and then records the information to be entered in the North Pacific Pelagic Seabird Database (NPPSD). She identifies and counts the many fulmars, murres, kittiwakes and other seabirds that are within 300 meters of the ship, often using binoculars to help correctly identify each bird before she records it. As the data are entered into the database, the computer automatically records the GPS location of the ship.



**US Fish and Wildlife Service seabird observer,
Tamara Mills**

Tamara is a biologist with the US Fish and Wildlife Service, but she's sailing on the NOAA research vessel OSCAR DYSON in order to add data to the NPPSD. Seabird observations are frequently done in the nesting colonies, but the colonies are where the birds spend the least of their time. In fact, roughly half of all seabirds may not be nesting in a given year, so that they would never be seen or counted in a land-based survey. USFWS has therefore collaborated with other agencies to place observers, like Tamara,

on “vessels of opportunity,” or research vessels where seabirds can be monitored and counted. USFWS seabird observers can be found on Coast Guard vessels, on NOAA ships, and on the Fish and Wildlife Service’s own research vessel.

Along with counting seabirds, Tamara is also logging marine mammal sightings. In 2006 USFWS seabird observers spent 168 days at sea and completed 14, 263 km of survey transects in the Bering Sea, some areas of the Gulf of Alaska, and the Aleutian Islands.



A northern fulmar photographed by Tamara on board the OSCAR DYSON

In all this work they spotted 69 species of seabirds and 16 species of marine mammals. Until this recent work, no information had been added to the NPPSD since the 1970’s and 1980’s.

“We want to get an up-to-date picture of what’s really out there,” Tamara said. “These data could be useful in studying climate change or in the event of an oil spill. It may also be possible to link what we’re finding in the bird surveys to the acoustic fish information that’s being collected, and we might

then be able to correlate the types of birds we see and their densities when certain kinds of fish are present.”

Personal Log

The Bering Sea was calm today!! We actually had some sun and were able to trawl and process without hanging on to railings and tables and such. Tomorrow we should head for our final transect, and we have nearly collected the minimum number of otoliths we set out to, so the cruise is beginning to wind down. We have plans for an Independence Day barbeque if the weather cooperates later in the day.

Question of the Day

Answer to yesterday’s question (What is conductivity?):

Conductivity is the measure of the ability of a solution to carry an electrical current, and is used to measure salinity.