NOAA Teacher at Sea
Anne Marie Wotkyns
Onboard NOAA Ship *Pisces*
July 7-13, 2010

NOAA Teacher at Sea: Anne Marie Wotkyns
NOAA Ship *Pisces*
Mission: Reef Fish Survey
Geographic Area: Gulf of Mexico
Date: Thursday, July 8, 2010

Weather Data from the Bridge
Wind: 7-9 mph
Other Weather Features:
Sunny, scattered light clouds
Waves 1'; Swells 3-4'
Location: 28.37.2 N
089.33 W

Science and Technology Log
Hello, my name is Anne Marie Wotkyns and I am participating in the NOAA Teacher at Sea program. I teach 4th grade at J.B. Monlux Magnet School in North Hollywood, California. I joined the NOAA ship *Pisces* on the evening of July 6 to begin a 6 day cruise in the Gulf of Mexico. I will be posting logs to share the information I learn and the experience of working aboard a scientific research vessel. We will be working on the SEAMAP Reef Fish Survey of Offshore Banks, a project which provides information about the relative abundance of fish species associated with geographic features such as banks and ledges on the continental shelf of the Gulf of Mexico. I'll be explaining this project more in my next log entry.

After meeting the other Teacher at Sea, Liz Warren and bird expert Scott Mills, at the Gulfport Mississippi Airport, we were driven to the NOAA docks in Pascagoula, Mississippi. It was quite late when we boarded the *Pisces*, so we found the cabin Liz and I would share, explored the ship a bit, and turned in for the night.

Wednesday, July 7 found us eager to get started on our TAS adventure. We started the day at the NOAA office and lab building, adjacent to the ship docks. There we met Kevin Rademacher,

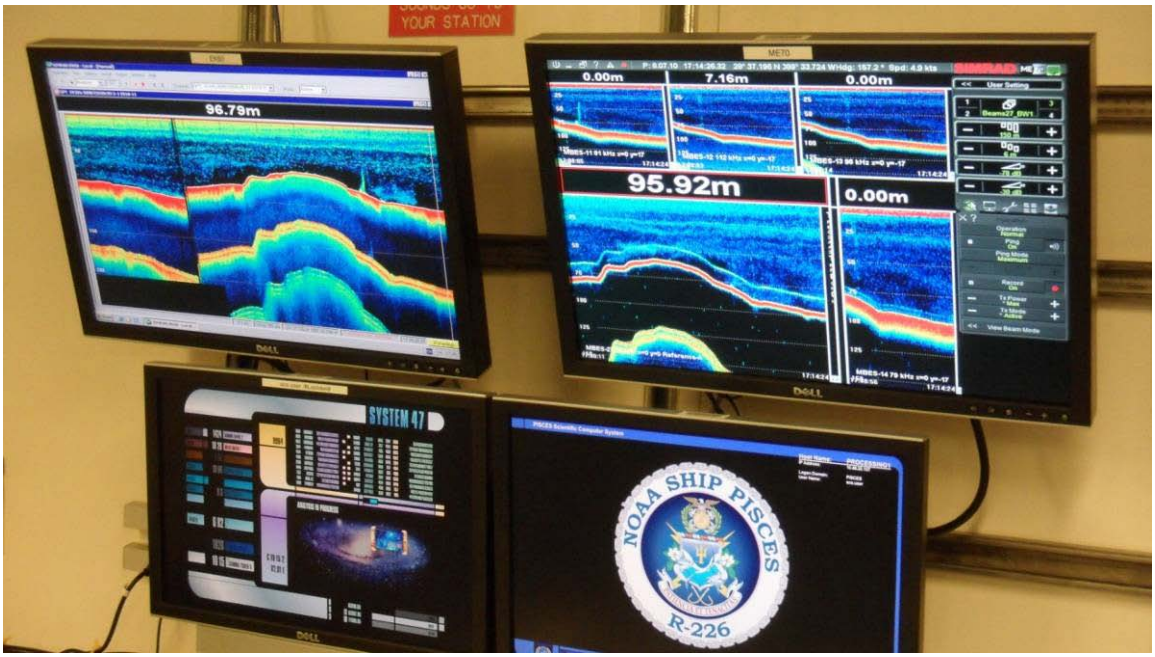
Chief Scientist for the SEAMAP (Southeast Area Monitoring and Assessment Program) offshore reef fish survey which we will be participating in on our cruise. He showed us around the NOAA facilities, which house the Southeast Marine Fisheries Offices, Seafood Inspection, and Documentation Approval and Supply Services. The fisheries division deals with resources surveys, harvesting, and engineering related to commercial fishing. The seafood inspection division deals with issues related to seafood safety and chemical and microbiological analysis of seafood. These labs can help determine if the "red snapper" your favorite restaurant serves is really red snapper or a different type of fish! This division will also be testing some of the fish we collect on our cruise for baseline data on fish from areas outside the oil spill for possible later comparison to fish collected within the spill zone.

Now a little more about the *Pisces*, my home away from home for the next 6 days. The *Pisces* was commissioned in 2009 and is one of NOAA's newest ships. She is 63.8 meters (209 feet) long, 15 meters (49.2 feet) wide, and has a draft of 6 meters (19.4 feet.) Her cruising speed is 14.5 knots and she can stay out to sea for 40 days if necessary. On this cruise there are 22 crew comprised of a commanding officer, deck officers, engineering officers, deck hands, engineers, stewards, and survey and electronic technicians. There are 6 on our science team and 2 bird observers conducting surveys of pelagic seabirds possibly affected by the oil spill.

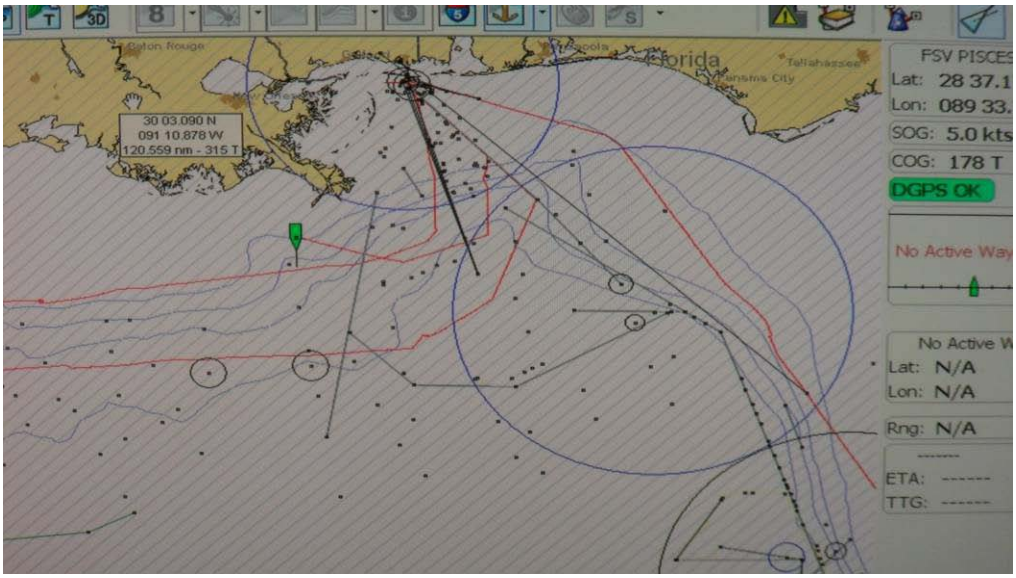
After we set sail on Tuesday afternoon, we spent much of the late afternoon up on the flying bridge, the highest deck on the ship. We observed a wide variety of boats and ships in the channels around Pascagoula Bay. Scott and Ron, the bird observers, helped us identify the bird species we saw, including Brown Pelicans, Laughing Gulls, and Sandwich Terns. We also saw several Atlantic Bottlenose Dolphin swimming near the ship. Soon the seas grew rougher and after dinner and a short welcome meeting, we retired to our cabins for the night.

Wednesday morning brought calmer seas, and the start of "science " on board the *Pisces.* Before

we reached the areas selected for the SEAMAP fish surveys, Chief Scientist Kevin Rademacher wanted to conduct bathymetric mapping of an area called Sackett Bank, off the coast of Lousiana. This involves sailing the ship in a series of overlapping transects 1.6 miles long, .05 miles apart, similar to “mowing your lawn” at home. The ME70 multibeam acoustic system covers a swath of 120 degrees using 27 beams which can detect and map features on the sea floor down to .5 meters in size. This will allow NOAA to produce highly accurate nautical charts of the region. The charts will eventually be available to commercial and sport fishermen, sailors, shipping companies, and anyone else who is interested.



When a ship is conducting activities like this bathymetric mapping or other “Restricted Mobility and Manuevers” work, they hoist a nylon “Ball-Diamond-Ball” to notify other ships in the area that it is restricted in its movement so the other ships can change their course. This message is also sent electronically by VHF radio signal. I happened to be on the bridge while they prepared to start the first transect, so Commanding Officer (CO) Jeremy Adams let me hoist the ball-diamond-ball.



In this photo, the green boat indicates the position of the *Pisces* as we conduct the mapping transects.

Tomorrow the plans are to begin the SEAMAP reef fish surveys, “one hour after sunrise” – looks like we’ll be working from about 7 am to 7 pm with the fish! Bring it on!!

Personal Log
After submitting Teacher at Sea applications for 3 years (the first 2 years I was not selected) I am thrilled to be here! The opportunity to participate in a cruise like this on such an amazing ship is truly a once in a lifetime experience!

Here are a few more pictures of life aboard the *Pisces.*

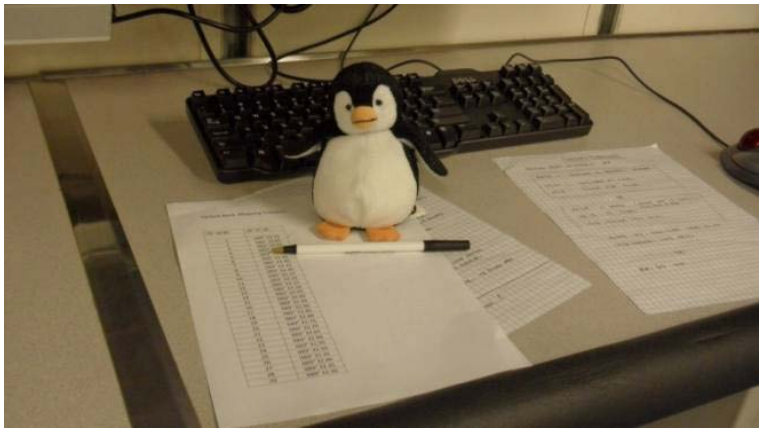


Our cabin is a little small, but very clean and functional. Liz volunteered to take the top bunk, so I have the bottom. I love the little curtains that can enclose the bunk – makes a dark little “cave” for me! And the reading lamp lets me read late at night! We have a flatscreen TV, but so far we have only been able to watch the USA network – one channel only. But we don’t spend much time in the cabin anyway. The bathroom is very similar to a cruise ship bathroom, and the shower has great water pressure – however the ship is under water conservation so showers need to be quick. Notice we’re eating on paper plates with plastic utensils. No dishwashing either! After the ship moves farther from the oil spill they will able to use their salt water to fresh water conversion process and we’ll be able to use water more freely.

In Pascagoula I purchased a small stuffed penguin and named him “Pascy” (for Pasacagoula.) Pascy has been exploring the *Pisces* so here are some shots of him around the ship!

Pascy chooses his dinner in the “mess” – sorry – no fish!

A little coffee is always good in the morning.



Pascy helps check off each transect in the acoustics lab.

The cookies here are great!

Another big event today was the fire drill and abandon ship drill. We were assigned “muster stations”, places we would go to in event of an emergency. Part of the drill was to practice donning our “survival suits” – one piece insulated buoyant suits that would keep us afloat and warm if we ever had to abandon ship. The hardest part of the drill was getting the awkward suit on and off – they seem to be one-size-fits all and I seem to be smaller than most sailors!

Even Pascy got to participate in the drill! I don’t think he need to worry about staying afloat or warm in the water! Good thing, because that lifejacket looks a little big!


ADULT