



**NOAA Teacher at Sea
Methea Sapp-Cassanego
Onboard NOAA Ship DELAWARE II
July 19 – August 8, 2007**

NOAA Teacher at Sea: Methea Sapp-Cassanego

NOAA Ship: DELAWARE II

Mission: Marine Mammal Survey

Day 12: Wednesday August 1st

Weather Data from Bridge

Visibility: 7nm lowering to less than 1 in fog

Wind Direction: Southerly

Wind Speed: 3-8 knt increasing to 8-13

Swell height: 3-5 feet

Science and Technology Log

Fog has kept our sightings to a minimum over the past two days. In fact we've had only two sightings since my last log on July 27th. Yet despite today's weather forecast, the fog horn has been silenced and everyone is outside enjoying the sunshine and stretching their eyes. It is a wonder to see color other than a shade of grey! The change in weather has also brought new sightings including 3 humpback whales, a pod of harbor porpoises, 4 right whales, a minke whale and a dozen or so pilot whales (spotted by your's truly). These sightings kept the observers busy as well as those involved in the launching of the zodiac (aka little grey boat) and the Tucker trawl. The morning sighting of the right whales prompted a Tucker trawl sampling in order to examine the copepod densities in the surrounding areas. (See earlier entries dated July 23rd and July 24th for more information regarding the Tucker trawl and copepods) The trawl did yield a higher density of copepods than all of our previous trawls which were carried out in the absence of right whale sightings, however compared to their prior experiences most of the researchers thought that the copepod densities were still on the sparse side.

The sighting of pilot whales brought the first launching of the zodiac boat. The goal for this expedition is two fold: 1. To attain tissue samples from some of the pods larger whales so that genetic analysis and subsequent pedigrees may be chronicled and; 2. Acquire photographic images of individual dorsal fins in an effort to establish a method of identifying individuals based on their unique dorsal fin features. Such features may include nicks, scratches, unusual scars and or color patterns.

Deployment of the zodiac requires numerous experienced hands and a wherewithal for safety. First the



The flexible Jacob's ladder rolled up for easy storage.

boat is loaded with all the supplies (photography equipment, biopsy tips and crossbows, and tissue specimen jars) that will be needed for the sampling and documentation of the pilot whales. Then the crane on the back deck is used to hoist the zodiac up and over the side of the DELAWARE II. Chief scientist, Dr. Richard Pace then climbs on board the zodiac while the crane slowly lowers the boat into the water. Dr. Pace keeps the zodiac in position while a special flexible hanging ladder called a Jacob's ladder is unrolled down the side of the DELAWARE II. All other persons enter the zodiac from the DELAWARE's back deck via the Jacob's ladder.



Dr. Richard Pace assists with deployment of the zodiac.



Once deployed, the researchers make final adjustments before pursuing the pilot whales.

After the little grey boat is loaded it sets off in the direction of the whales as indicated by the observers on the fly bridge, who have all the while been communicating the whales' position to the captain of the DELAWARE who then makes sure that the ship stays relatively close to the pod. As one can imagine three-way communication between the fly bridge, the wheel house and the zodiac is critical for not only tracking the swiftly moving whales but also for the safety of all involved.

Today was my day to be on the fly bridge as all of this was going on but if the weather holds and we keep seeing pilot whales then I too may get to ride on the zodiac.