



**NOAA Teacher at Sea  
Clare Wagstaff  
Onboard NOAA Ship JOHN N. COBB  
June 1 – 14, 2008**

**NOAA Teacher at Sea: Clare Wagstaff**

NOAA Ship JOHN N. COBB

Mission: Alaskan Harbor Seal – Pupping Phenology & Critical Habitat Study

Geographic Area: Southeast Alaska – Warren Channel and Kake

Date: June 4, 2008

**Contact Information**

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**Weather Data from the Bridge (information taken at 1200)**

Weather: Overcast and light rain

Visibility (nautical miles): 10

Wind Speed (knots): 16

Wave Height (feet): 1 - 2

Sea Water Temp ( $^{\circ}$ C): 8.2

Air Temp ( $^{\circ}$ C): 12

**Day 4**

Oh what a rough night! Our anchor site was in a rather exposed channel just east of Warren Island and the ship was definitely rolling. So much so, I found the best way to secure myself in bed was to wedge my body in between the mattress and the wooden bed frame! At approximately 02:00 this morning the U.S. Coast Guard (USCG) cutter, the Anacapa, arrived from Juneau to tow us part of the way back to port. The USCG boarded the 250-ton COBB around sunrise and secured a towing line for the long return journey.

Disappointed that this might signal the end of the cruise, Dave and I were left with little to do but read, listen to music and partake in a few hours of whale watching as the Anacapa pulled us along at approximately seven knots. At around 18:00 the USCG left us for another mission and the COBB was once again anchored down for the night near the small town of Kake. From the ship this native Alaskan town appears very small and quite rundown, although I did see a very new looking building that said 'High School' on it. Now once again stranded, the responsibility falls on the CO and XO to find us another tow the last 90 nautical miles back to Juneau. But with tugboats in the area all already with a full schedule and being astonishingly expensive, it seems unlikely that the journey home will be a quick or cheap one! However, the crew and I do get cell

phone reception here, so all is not lost. A quick phone call back to our loved ones helps us all feel a little better about the day's events.



**USCG Cutter Anacapa. It towed us from Warren Channel (55°54'N 133°49'W) to Kake (56°57'N 133°56'), 90 nautical miles to Juneau!**

### **Science and Technology Log – Whale Identification**

Although Dave and I were not able to venture out in the skiff today, I was able to observe, at a great distance, a number of humpback whales. But identification of these marine mammals is not as easy as it seems.

Whales are mammals in the order Cetacea, along with dolphins and porpoises. Cetaceans spend their entire life in water: feeding, mating, giving birth and raising their young in this aquatic environment. They have adapted to breathe through a blowhole on the top of the head. The species we will most commonly observe during our cruise fall into two suborders: toothed whales (Odontoceti) and baleen whales (Mysticeti).

For the huge mass that a whale occupies, rarely do you see the majority of its body for identification. To accurately identify the correct species you need to make a number of observations regarding three main areas. Identification starts with observations of the whale's blow (expelled air), in regards to the shape, height and angle. Baleen whales have two nostrils and toothed whales have one, which influence the pattern created by the blow. If observed head on, this is a simple way to distinguish between the two suborders. So far on this cruise though our observations have been from such a great distance away (minimum of half a mile away) that it has been difficult for me, a beginner, to make any accurate observations.

<b>Suborder</b>	<b>Examples found around southeast Alaska</b>
Mysticetes (Baleen whales with two nostrils)	Grey Whale, Humpback Whale, Minke Whale
Odontocetes (Toothed whales with one nostril)	Killer Whale (Orca), Pacific White-sided Dolphin, Dall's Porpoise, Harbor Porpoise

The next observation to make is of a whale's dorsal fin that is located on its back and displayed, if present, when it surfaces and/or dives. If present, its size, shape and location should be recorded. The last basic observation is of a whale's fluke and its shape.

The most common whale seen in the southeast Alaska is the humpback. Protected from commercial harvest since 1966, it is still endangered and so seeing it is a very special occurrence. A humpback whale's general characteristics are a two-nostril blow that is generally broad and bushy. It normally blows between four and ten times before diving. The dorsal fin is exposed as it blows but it is small in comparison to the rest of its body mass and located two thirds of the way along its back. Finally, its broad flukes tend to exhibit an irregular trailing edge and are displayed as it dives. The markings displayed on the whale's fluke are unique to the individual, like that of a fingerprint, and allow scientists to track individual whale through sightings. Of course this is over simplifying things, but it gives me as a beginner a place to start!

#### **“Did You Know”**

The Northern Right whale was named the 'right' whale by commercial whalers because it was easily approached, floats when killed, and is rich in oil. Today it is endangered and protected since 1935. Estimates suggest the population in the Alaska region could be as low as 100-200 individuals.