



**NOAA Teacher at Sea
Tara Fogleman
Onboard NOAA Ship JOHN N. COBB
June 1 – 14, 2007**

Date: 31 May 2007

Location: Southeast Alaska—Juneau

Mission: Alaskan Harbor Seal—Pupping Phenology and Site Monitoring

After a long day of plane travel to Juneau, I found the JOHN N. COBB, located my stateroom for the length of the cruise, unpacked, and quickly fell asleep. It wasn't until today that I was able to explore Juneau by foot. Immediately upon leaving the boat, I could tell that I was a long way from Savannah, Georgia! The weather in June is still cold and unpredictable here—temperatures can fluctuate from 40°F and raining to 75°F and sunny, so it is important to dress in layers. The sky here is often overcast or partly cloudy, and today was no exception.



Photograph 1. Tara Fogleman, a NOAA Teacher-at-Sea participant, sailed on the JOHN N. COBB while taking part in an Alaskan harbor seal study.

The area of Juneau closest to the NOAA boat dock is a tourist-ridden area because it is a popular drop-off site for people sailing on cruise ships—however, I maneuvered around quickly, enjoying the local art shops, murals and statues, and learning about the history of

the area at the local historic sites, such as the Governor's House and the Alaska State Capitol.

Exploring Juneau and its History—

The first residents of Juneau, the Tlingit people, fished and hunted in the Gastineau Channel for centuries. I observed evidence of their culture, including decorative artwork and totems, throughout the city.

In the 1870s, a mining engineer named George Pilz offered a reward to anyone who could lead him to gold. Chief Kowee, of the Auk Tlingit tribe, approached him with samples of gold from the Gastineau Channel, and a search party was sent to investigate. When the mother lode was found in Silver Bowl Basin, prospectors began to arrive by boat with hopes of finding gold and making it rich. On October 18, 1880, a 160-acre town site was staked out on the beach, and Juneau was born. Within a few years, Juneau was transformed from a native fishing village to a large-scale mining industry. Juneau became the capital of Alaska on January 3, 1959, when Alaska was granted statehood.



Photograph 2. A view of the town of Juneau, Alaska taken from the JOHN N. COBB as the ship began its journey.

The city of Juneau is located in the middle of the Tongass National Forest, which is the largest temperate rainforest in North America. This forest, which covers nearly 17-million acres, is dominated by the Sitka spruce, which is Alaska's state tree. The Sitka spruce is identified by its very straight top and sharp-tipped needles, and can reach ages of 200 to 700 years old. The Tongass is a temperate rainforest, which differs from a tropical rainforest in two ways: temperate forests are much cooler, and they are inhabited

by fewer species of plants and animals. However, though temperate rainforests are less diverse than tropical rainforests, they contain a high amount of biomass. Animals such as bald eagles, black bears, marmots, and porcupines inhabit the Tongass, and organisms such as harbor seals and salmon can be found in the coastal waters.

After exploring Juneau, I headed back to the boat to speak with Dave Withrow, the Chief Scientist for the mission. We spoke briefly about the procedures for the study and the major objectives that we will try to achieve while aboard the JOHN N. COBB.

The Objectives of the Study—

During this cruise, Dave will be exploring selected areas of southeastern Alaska to: 1) determine population counts of harbor seals, with a special emphasis on which sites are being used for pupping, 2) identify how many pups are born and the approximate age and size of these pups, and 3) identify potential haulout sites for long-term studies, such as sites that are inhabited by large numbers of seals (more than 200). Identifying critical habitat is an important component of this study, because many of these habitat areas are experiencing a decline. Harbor seals use the floating ice calved from tidewater glaciers to pup, nurse their young, and molt, because these areas are free from most predators and disturbance. However, these tidewater glaciers are disappearing at an alarming rate; in 1983, there were 52 recorded tidewater glaciers, and in 2004, only 31 of these documented glaciers remained, and all but 5 of them were receding. This reduction of pupping habitat could have a significant impact on harbor seal populations.

More Sightseeing Around Juneau—

Prior to setting sail, I ran errands with the crew around Juneau to pick up miscellaneous gear needed for the cruise, and I even stopped at the Alaskan Brewery to take a tour of their facilities. Later that evening, Dave Withrow took me to the Mendenhall Glacier—this is a glacier located just outside of Juneau. He told me that the glacier has been retreating at an alarming rate during the past years. I was particularly amazed at the light blue-green color of the glacial ice that floated in the water in front of the glacier—it is unlike anything I have ever seen.

I'm off to bed for now—tomorrow we set sail for our first study sites.



Photograph 3. Mendenhall Glacier is located just outside of Juneau, Alaska. The glacier is retreating at an alarming rate.