



NOAA Teacher at Sea
Barney Peterson
Onboard NOAA Ship RAINIER
August 12 – September 1, 2006

NOAA Teacher at Sea: Barney Peterson

NOAA Ship RAINIER

Mission: Hydrographic Survey

Friday, August 25, 2006

Weather Data from Bridge

Visibility: 10 nm

Wind direction: 177° true

Wind speed: 20 kts

Sea wave height: 0 – 1 ft

Seawater temperature: 8.9° C

Sea level pressure: 1007.2 mb

Cloud cover: Partly Cloudy

Science and Technology Log

Many of the islands off the Alaska Peninsula rise straight up out of the sea, looking barren and lonely. This is not the case, however, if you train your eyes to see. True, there are no human inhabitants, and few land mammals, but the shores and the water around them team with life.

If you are fortunate enough to spend time in a kayak along the shoreline of the islands you will see some of the near-shore marine creatures. The bases of the cliffs on Nagai Island were covered by bands of Blue Mussels right at the tide line. On rare occasions, when the waves are small and the wind is calm, you can spot Leather Stars on the rocks with the barnacles, Dunce Cap Limpets, and a variety of winkles.



Blue Mussels at the water line on Nagai Island.

The cliffs of the islands provide nesting spots for shaggy-looking Tufted Puffins and their sleeker looking relatives, Horned Puffins. These funny little birds have very dense bones compared to others that spend most of their time in the air. They spend much of their lives in or on the water (they dive in and “fly” underwater...using their wings to swim after fish.) The heavy, stubby Puffins look awkward as they struggle to fly off the water, and on land they sometimes dive off rocks and cliffs to help launch themselves into the

air. They spend much of their lives at sea, returning to land only for nesting and breeding.



Gulls on the rocks at Nagai Island.

Other common birds on the cliffs and rocky shores are Double-crested Cormorants (snooty-looking as they sit on the rocks with their beaks pointed straight up in the air), gulls of several types, Sooty Shearwaters, and Black Oystercatchers. When you spot a large group of birds diving and swooping at the water it is a pretty good signal that there is a “bait ball” of herring or other small fish near the surface and the birds are feeding on them while the fishing is easy.

If you are lucky enough to get ashore for a hike through the thick brush you will probably discover Water Pipits and Northern

Waterthrush flitting from branch to branch, watching you curiously. There are the seeds of grasses and lots of berries for them to eat along with the many small creatures from the water’s edge. High on the cliffs of some islands we spotted Bald Eagles riding the thermal air currents.



Bald Eagles soaring over Olga Island.

The only land mammal that I saw on any of the islands where we worked was an Arctic Ground Squirrel slipping into the grass above the beach. It was about 14 inches long and golden-brown. There are lots of grasses, roots, and berries for them to eat. They live in burrows in the thick mats of roots and shallow

soil that cover large areas of the islands. At first it seemed strange that there were no larger mammals to see, but we were a long way from the mainland and the only way animals can get to the islands is by swimming. Bears, moose, foxes, sheep, goats and other larger animals have no reason to swim that far for a place to live.



Two Sea Otters looking at the ship curiously.

Sea Otters live mostly in the water. Their bodies are much better designed for life in the sea than on land. With their webbed feet and thick fur they are clever fishers, strong

swimmers, and comical to watch. We often saw otters near the shoreline, floating on their backs among the kelp beds. They are very curious and would sometimes slowly move closer to give us a good looking-over before diving and finding a more private place to do their eating.

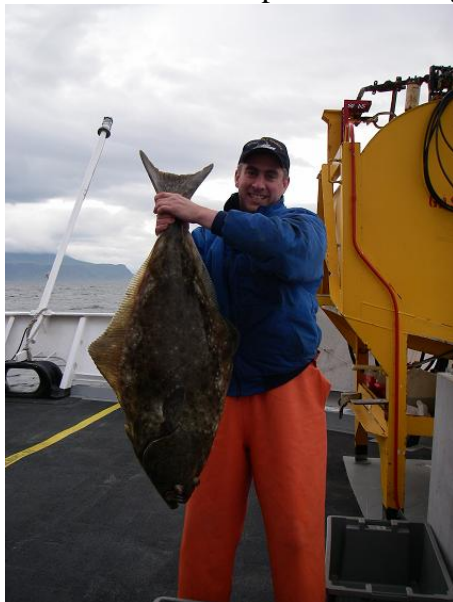
By watching the water near the shoreline carefully, we sometimes spotted sea lions or seals. There has been a marked decrease in the number of sea lions seen in the last few years, but there are still some in these waters. Both seals and sea lions eat fish and like to find places to feed on salmon as they head inshore to spawn. They are curious just like the otters and sometimes get fairly close to the ships, survey boats, or kayaks to see what humans are doing.



Seals peeking at TAS Peterson near Mitrofanina Island.

It was always a treat when someone spotted whales. This area is home to several kinds and, while fairly easy to spot, they are very hard to photograph. On our first night out we saw misty gray plumes above the water and spotted Sei Whales as they surfaced and dove. Two days later we watched Humpbacked Whales feeding among the diving birds near Nagai Island where we were surveying. Seeing those groups of birds is a signal to watch for whales feeding too. Another time we saw the dorsal fins of Orcas off in the distance, but they never got close enough to try for pictures.

The crew on our ship took advantage of every opportunity to go fishing. An



A large halibut caught by Lt. Ben Evans.

announcement would come over the PA system, “Fishing to commence in 5 minutes and continue for 15 minutes” and we would know we were right over a really good spot. Every fisherman who wasn’t on duty at that moment would quickly get a line over the side. Those of us who aren’t fishermen would be on hand to help land the monsters they hoped to catch! At the end of the prescribed time another announcement would signal lines in and the excitement would be over until the next time. (There were opportunities to fish on several evenings when we were anchored for a day or two of survey work in the same area. During the daytime, it is all business and the only fish I spotted were Moon Jellyfish in the water beside the ship.)

These waters are particularly good for halibut and I saw folks catch all sizes. They prefer fish about 30

to 40 pounds for the best eating, but love to hook a big one, 100 pounds or more, for the thrill of bringing it in. I helped ENS Evans land an 80 plus pound halibut, and it was a lot of work! I also got to help with filleting and freezing the fish, and that is a job too, but the taste of fresh halibut is worth it!

We saw lots of other fish too. On our first night out we anchored in a small bay where the Pink salmon were jumping all around us. Two days later our survey boat was surrounded by Pink salmon and one of the crew caught one that evening. This is right at the start of the fall spawning time for the Pinks and the end of the Coho season, so there were plenty of fish around. When the fishermen had their lines down deep after halibut, they also caught Yelloweye Rockfish, Sea Bass, and Ling Cod. All of these are good eating so, if they are large enough to keep, they get cleaned and used. Most of the fishermen vacuum-pack their fish to take home, but we ate quite a bit of fresh fish too. Two other sea creatures that were caught while I have been aboard were a 4.5 foot Spiny Dogfish shark and a Big Skate. I saw one Kelp Greenling when we took a look at the bottom with a remote underwater camera. Every once in a while I would see a silver flash dangling from the beaks of gulls or puffins or jumping from the water as a school of herring swam past.



Tim Van Dyke with a Yelloweye Rockfish he caught on his birthday!

Although living and working aboard the RAINIER doesn't leave lots of time for bird watching, whale watching, or fishing, everyone finds ways to make those activities parts of their everyday routine as often as possible. Their ability to spot the wildlife, and their eagerness to share it with me, has helped to make my time on the RAINIER an even better experience.

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