

The 2015 Field Season of the R/V Tiglax



Red Faced Booby above the Tiglax

Spring

In the fall of 2014 the ship deployed four acoustic buoys for Scripps University. The buoys spent the winter in the Gulf of Alaska on seamounts off the continental shelf. Therefore, the first mission of the new year was to recover the equipment. A two-man crew from San Diego arrived on the 24th of April, and we departed on the ebb tide. The weather was a gale all the way to the first buoy. The challenges begin with locating the equipment, then talking with the releases so the equipment can rise to the surface and be recovered; once at the surface it can get a wee bit interesting if the conditions are bad. The instruments are round with only one place to fix to it to bring it aboard. It takes a long reach with a pike pole with a releasable hook on it attached to a long painter to get the apparatus up to the ship to be brought on board by the ship's

crane. Once the buoy is connected to the crane it is important to get it aboard quickly so that it doesn't begin to swing in the oceanic conditions and crash into the ship's hull. If it does, the equipment could get damaged or destroyed, losing a winter's worth of data. Thankfully the conditions subsided through the entire recovery period so that by the time the final buoy was aboard two days later, the sea conditions were similar to leaving the harbor. With all the buoys aboard we headed for Seward to do the annual GLOBEC cruise.

GLOBEC began in the early 1990s and is one of the longest running oceanic research projects conducted in the Gulf of Alaska. The GLOBEC cruise takes place in the spring and fall. As stated in earlier reports, the Tiglax has been collecting water from the same stations for nine consecutive years. Last year's tests gave scientists early indications of a warming trend in the deep water off the shelf.

Summer

The summer field season in the Alaska Maritime NWR begins in mid-May and extends to the first week in September, and by most standards it's really not summer. The temperatures in the Aleutians dip into the upper 40's by midsummer so we use the word summer in a comic sense only. There are a few days a year when you might see 60 degrees, but this is unusual. The weather this field season was a bit

blustery to start out. Our first camp to deploy were on the island of Chirikof, located east of the Semidi Island group in the Gulf of Alaska. The camp was supposed to be comprised of two sites, one on the northeast shore and the other on the southwest.

Chirikof is very challenging to work due to the shoaling and reef systems that surround it, which require the ship to anchor off shore, leaving a long skiff ride to and from the island. The plan to have camp locations on both east and west shores began to change upon our arrival. The transit there was comfortable but the wind began to freshen as we approached the island out of the southeast. We put the first camp out on the southwest shore and then waited because the southeast wind increased to 40 knots, keeping the ship at anchor unable to work. Crews were deployed the next morning in marginal conditions to investigate the northeast shore using four-wheelers to find a suitable camp for the summer and assess beach surf conditions for landing. By evening it was decided to put all ashore at the southwest camp: the conditions on the east side and the forecast made the decision quite easy. When morning came all supplies and crews were offloaded at the southwest site, which could have inherent bad consequences when the end-of-summer pick-up rolls around.

By the second week in June we had already experienced hurricane-force winds on two occasions. This put a damper on getting the western camp of Buldir out. There was a couple of scientists whose work was time critical, and with each delay of putting the crew ashore their anxiety levels went up. They



Figure 1. Run away!

eventually were put ashore miles from camp on a marginal day just so they could begin their field work of recovering transmitters from returning seabirds. This meant that crews would spend the next

few days walking their summer supply of gear around the coast to the camp site. The operation is tedious and very time consuming over very rugged terrain. The ship eventually returned in a week and moved the remainder of the gear to the northwest shore where the annual monitoring site is.

Seabird monitoring is one of the annual missions at Alaska Maritime but other missions can include the removal of invasive species on the refuge. On the island of Kagalaska, located in the Andreanof Islands group in the central Aleutians, caribou have migrated across from the island of Adak. The two

islands are separated by Kagalaska Strait, which at its narrowest point is less than half a nautical mile wide. Caribou are non-native to Kagalaska, and the biodiversity policy of the Service requires us to work towards prevention of exotic introductions. In 2015 the refuge embarked on its mission of removing the caribou from Kagalaska and distributing the harvested meat to the people residing in Adak. That is easier said than done, and not knowing how many animals were on the island made us unsure of the success of the outcome. We had observed animals in an eastern bay we named St Paul's Cove the year before while conducting a survey. That would be our starting point, and we arrived in that bay close to 2200h with dusk approaching. As the ship neared its anchoring location, three animals were seen on the far side of a shore-side lake approximately a mile from our position. We decided not to anchor for fear of alarming the prey. We launched our small boat with the designated shooters aboard, and they set out to hunt. The hunters immediately took to the high ground and used the wind to their advantage to get within firing range of the caribou. The bridge of the ship was occupied by many, and all had a view of the events about to unfold in the field. Once the proper position was held by the hunters with a full view of all animals, they were harvested and then the packers were deployed from the ship to assist in the recovery of the meat. The meat and all personnel were aboard by the last of the

fading light, which was 50 minutes after midnight at that latitude. A total of nine animals were removed from the island over a three-day period. No other caribou were observed by our teams



Figure 2. Distribution of meat in Adak

of hunters; there are no trees in the Aleutians so visibility during the hunt was excellent. In the late afternoon of the third day the ship arrived in Adak and was met dockside by a contingent of people who were to be the recipients of the harvest. It happened to be the largest turnout of people to witness the ships arrival in Adak in recent history. Over the next three hours trucks arrived carrying people to receive their portion of the harvest. The meat was dispersed to all that were on the prearranged list. As they departed with smiles they gave thanks to the crews for this much welcomed influx of fresh meat to the island.

By the time the Summer Solstice comes around the refuge is abundant with wildlife. The annual sea lion cruise with the National Marine Mammal Lab scientists began June 19th, and for the next 19 days we visited a large percentage of the sea lion rookeries in the Aleutians from Unimak to Attu. At these sites one gets to witness the abundance of wildlife that uses the refuge as their breeding grounds. It is a rewarding sight to

witness as you travel to and from each rookery: the sea lions with their newborn pups that are just screaming at the world around them, as just offshore the Atka mackerel are moving inshore in large schools to stake their claim in the cycle of life. As usual, orcas police the environment for the weak or naive. The whaling crews were again successful, tagging four killer whales as part of their ongoing study of identifying the resident and transient orcas visiting the Aleutians. One adult sperm whale was tagged off the coast of Shemya. An instrument was



Figure 3. Perfect shot!

implanted in its dorsal fin to record its diving patterns and migratory movements, but the crew was unsuccessful at getting alongside the whale a second time to get a

biopsy sample. The adult male is over 50 feet in length and seems much larger than that when traveling alongside in a 15 ft inflatable. Little is known about the Aleutian sperm whales, where the population seems to be primarily large adult males who reside in the area for long periods of time before migrating south to the birthing grounds. They are frequently seen in deep water from Amchitka Pass to Stalemate Bank east of Attu whenever you transit the north side of the chain. We completed the NMML cruise in Unalaska with a celebration of the 4th of July underneath the best fireworks show in the

Aleutians! From there the ship headed north to Homer to refurbish and refuel and to give the crew a well-earned day off before taking on the second half of the field season.

The Pribilofs:

On the 11th of July the ship departed Homer to begin the second half of the Alaska Maritime NWR field season. Our first stop was to replenish the fox trappers on Chirikof that we last visited in May. A long hot shower every two months is a good thing, so the ship appearing on the horizon was a welcome sight to the men. They arrived alongside in their skiffs once the anchor was firmly in the sand. With every washer and dryer working furiously and the men clean for the first time since they could remember, the stories came out of their finds and adventures on island. The trappers cohabitate the island with a herd of cattle that have had the place to themselves for many years, along with the fox that are being removed. There were numerous encounters with the curious bovines that are wreaking havoc on the habitat. The men use four-wheelers to check their trap lines on a daily basis. A large fin whale, a humpback whale, and two Steller sea lions washed up on the shore a couple weeks after the crew's arrival. These animals could be just a small part of the marine mammal die off that occurred this year in the Gulf, which was referred to by NOAA

as an unusual mortality event. With clean clothes and restocked with fuel and groceries the trappers left for camp, and the ship weighed anchor, heading southwest to resupply the camps of Chowiet and Aiktak.

The Pribilofs are made up of four islands, St Paul the largest, St George, Walrus, and Otter islands. They are located in the central part of the Bering Sea some 195 nautical miles northeast of Dutch Harbor. We stopped in Cold Bay to deliver freight to Izembek NWR and remove old recyclables that have been accumulating at the station for years, and to pick up the Youth Conservation Corps students who had been assisting staff there with projects for the last four days and deliver them to St Paul.

The students were anxious to come aboard and sail north to the Pribilofs. They jumped right in assisting the crew with the loading of cargo before departure. The five students came from Homer, Sand Point, and St Paul. They were put into a watch schedule for the transit north to teach them navigation and biological survey techniques and incorporate them into the daily jobs of the crew on board ship including cooking and cleaning. These groups of students were very proactive in any duty they had been assigned and brought a great attitude also that enhanced the morale of the ship.

We arrived at St George on the afternoon of the 16th of July where a contingency of islanders met us at the dock awaiting freight we were to deliver. The skiff surveys began right after the evening meal while cargo was being unloaded. Surveys were conducted over the next few days of all islands using skiffs and remote controlled aircraft with the assistance of NMFS. There is a large and very distinct seal population on Otter Island, and it was important to use the drone to get an accurate population count of seals on island without disturbance.

The ship concluded its work in the Pribilofs and headed south for the remainder of the field season. Seabird surveys were conducted around Umnak Island in the eastern Aleutians and in the Islands of Four Mountains. In August there was a three-week sea otter survey in the Near and Rat islands. All the major islands were circumnavigated by two skiffs, and a



Figure 4. Another successful hexacopter retrieval

complete population count was done. In conjunction with the skiff surveys, dive transects were conducted at four specific locations per island to estimate food density and availability. This survey is conducted bi-annually

with the marine mammal division of Region 7. This year the weather for the survey was excellent when we circumnavigated

the island of Amchitka, which has a long south-facing shore that is historically inhospitable in the summer. In 2015 it wasn't, and a complete survey of the island was done. A vibrant population was found on the south shore--a pleasant surprise in a

population that has been declining in recent years.



Figure 5. Ye olde trapper cabin

We completed the survey on the 21st of August and headed to Adak. We made a brief stop at the island of Kanaga to begin the

stabilization of the last remnant on the refuge of the fox-trapping era in the Aleutians, which started when the US began leasing islands in 1882 and had run its course of being a profitable endeavor by the time of the Great Depression. In Kanaga Bay there are two remaining structures that were erected sometime in the early 1920s by the Kanaga Ranch Company to conduct fox trapping and serve as a trade center. These are the oldest standing structures on Alaska Maritime refuge land. One is the old barn, a beautiful hand-built structure made out of clear Douglas fir on cement poured pilings and the other is a little ranch house, one storey with two bunks and a small kitchen inside made of similar materials. Over the years the cedar-shake roofs have been degraded due to their age and the

continual onslaught of wind and rain that is prominent in the Aleutians, but overall the ranch house is in good condition considering its age. If left in that condition it would be like all the other structures built in the Aleutians at that time to support the trade, destroyed by the environment it was constructed in.

A decision was made to stabilize it for the time being and consider what, if anything, will be done to the structure in the future. The first step in the process was to remove the old leaking shakes completely and replace them with temporary sheeting to stop the weather from coming in. The sea otter crew assisted the ship's crew in the removal of all the old shakes. Five days later the ship crew returned and installed a metal roof on the old purlins, and now she can begin the process of drying out and combating the elements.

The trip home. from Buldir, the site of our westernmost annual seabird monitoring camp, takes almost seven full days. All season long in the back of our minds was how the pick up at Chirikof would go at the end of the field season. The camp site was exposed to the southwest, and a storm could delay pick up for some time, which by the end of a long field season is one of the harder things to deal with, delays. With the other camps aboard and the boat full of field season stories, the last one was about to be told. Three days out the weather prediction had a

storm developing on the day of the Chirikof pick up. The ship only travels at ten knots, and storms can travel faster. The ETA to pick up camp was 1600h, and as we approached the wind began to increase and the barometer was dropping sharply. The conditions were changing, and there was very little visibility with a driving rain. All hands began recovering this large camp of four-wheelers and skiffs and hundreds and hundreds of traps that couldn't be left on island. The surf conditions were marginal to say the least but workable due to the experienced hands on scene. We had two skiffs operating simultaneously making good headway until one of the skiffs operated by a trapper returning to shore for more gear came over the radio asking, "Do you guys see or hear me out here?" A bit of a sinking feeling in the fading light. We began sounding the ship's fog signal, and the operator heard it through the gale-force wind. He was guided back to the ship using the ship's radar and radio communications from the bridge. One happy camper was back aboard in a long 15 minutes. Using just one skiff to remove the rest of the camp, things began to slow down. The ebbing tide required the ship to be repositioned to recover the remaining gear. By 2100h everything was on board, including all the wet and tired field crews, and we were bound for home with the wind on our stern.

R/V Tiglax *Facts:*

This year's marine mammal sightings from the bridge were as follows in order of abundance: killer whales (328) Dall porpoises (171) humpback whales (68) sperm whales (27) Minke whales (23) fin whales (20) Pacific white-sided dolphins (12) beaked whales (5) and although it is not a marine mammal we list sightings of short-tailed albatross here which was 13 for the year. The numbers for sightings for humpbacks was down considerably from last year due to lack of extensive time the ship worked in areas where they are in significant numbers, although for the second consecutive year humpbacks were observed in the Near Islands.

- Days at sea: 141
- Nautical miles traveled on the ocean: 15,364
- Passengers: 138
- Ports of call: Adak, Cold Bay, Dutch Harbor, Homer, Seward, St George, St Paul
- Dockings: 58
- Field camps supported: 6
- Federal User groups: DOE, NMFS, NOAA, NWS, USGS /AVO, USDA, USFWS
- NGO's: Memorial University Canada, Scripps Research Institute, University of Alaska Anchorage and Fairbanks, University New Brunswick Canada

Refuge projects supported: Adak logistical support, (5) Annual monitoring camps, Fox removal at Chirikof , Formerly used defense site visits at Attu and Great Sitkin, Kagalaska caribou removal, Kanaga cabin stabilization project, Kasatochi eruption studies, Pribilof Island cormorant study, Ptarmigan translocation survey in the Near Islands, R/V Tiglax environmental education program, Umnak Island shoreline survey, Valor in the Pacific National Monument construction at Kiska, and the YCC student education program