**Farallon Island NWR**

**Monthly Report**

**February 2016**

Biologist: Ryan Berger & Pete Warzybok

**Island Visitors**

Point Blue crew this month included: Cassie Bednar, Ryan Berger, Scarlett Hutchin, Taylor Nairn, Ross Nichols and Pete Warzybok.

Additional island visitors this month included: Jonathan Shore and Ed Van Til from USFWS

**Feb 15:** “**Stillwater”** (skipper Richard Webber) brought out supplies and Point Blue personnel Taylor Nairn and Ryan Berger to the island. Four people toured the island. Pete Warzybok and Cassie Bednar departed.

**Feb 23:** “**USCG Helicopter”** brought out Jonathan Shore and Ed Van Til from USFWS.

**Feb 27:** “**USCG Helicopter”** departed with Jonathan Shore and Ed Van Til from USFWS.

**Feb 29:** “**Starbuck”** (skipper John Wade) brought out supplies and Point Blue personnel Cassie Bednar and Emma Chiaroni to the island. Three people toured the island. Ross Nichols departed.

**West End Island Visitors**

**Feb 9:** Pete Warzybok, Scarlett Hutchin, Cassie Bednar, and Ross Nichols visited West End to conduct pinniped surveys.

**Feb 27:** Ryan Berger, Scarlett Hutchin, Taylor Nairn, and Ross Nichols visited West End to conduct pinniped surveys.

**Weather/Ocean**

The month of February was relatively calm and mild with light winds and good visibility on most days. There were no major storm events during this month. There was a total of 0.74 inches of rainfall recorded this month. Mean noon day air temperature was 14.6°C, with a standard deviation of 1.5°C. The highest air temperature was 20.0° C recorded at 1500 hours on the 8th. The lowest temperature was 9.0° C recorded at 0600 hours on the 3rd. Mean sea surface temperature was 13.0°C, with a standard deviation of 0.40°C, a high of 13.67°C on the 1st and a low of 12.13°C on the 20th.

**Oiled & Entangled Things**

**Zalophus** – On Feb 18th there was an adult female on Upper Mirounga Beach with ~5-10% of its body oiled on the abdomen and sides. There were a total of 24 individual Zalophus seen with various levels of entanglements. The vast majority of which were tightly wrapped or embedded around the neck. When the material could be identified, it was usually monofilament.

**Breeding Birds**

**Ashy Storm-Petrel –** The first depredated ASSP by Burrowing Owl was found freshly dead on Feb 8th. No other carcasses or live birds have been noted this month.

**Leach’s Storm-Petrel** – None noticed.

**Brandt’s Cormorant** –Similar to last month, many birds have been seen roosting in the normal spots around the island during most mornings and evenings this month. Overall numbers have increased slightly compared to last month. By month’s end birds at North Landing/Tower Point were in breeding plumage.

**Pelagic Cormorant –** Birds have been regularly roosting on cliff faces and islets during most mornings and evenings this month with the majority of individuals seen in breeding plumage and attending nest sites.

**Double-crested Cormorant** – None detected this month.

**Western Gull** – Numbers increased throughout the month and a few thousand individuals were regularly seen on territory in the morning and evenings. It was noted on Feb 17th that many breeding birds have been remaining on territory overnight which became more consistent by the end of the month.

**California Gulls –** Large roosts have been documented on the Marine Terrace in areas where nesting has been documented.

**Common Murre –** High colony attendance has been frequent this month and band resights at USP was conducted twice.

**Pigeon Guillemot –** None detected this month.

**Cassin’s Auklet –** Cassin’s were documented attending the island on multiple nights around Feb 11th in which there were large numbers and they were excavating burrows.

**Rhinoceros Auklet –** No live individuals were seen this month but 5 freshly dead individuals (all killed by Peregrine Falcons) were documented at NL on 5 different days.

**Tufted Puffin –** None were seen.

**Black Oystercatchers** – Similar to last month, most seen roosting and feeding on Low Arch and Mussel Flat during high tide, but individuals were also scattered about other intertidal areas. During high tide events it was common to see 30 + birds roosting together.

**Pinnipeds**

**California Sea Lion** –Overall numbers fluctuated this month with lower numbers early and an increase late in the month. There are still large numbers hauling out high on the marine terrace. On average there were 3,042 (±812) animals counted during pinniped census from the lighthouse. The high count was 4,257 on the 25th. There were many emaciated individuals observed around the island this month and aborted fetuses continued to be seen. By the end of the month there were a total of 36 fetuses observed and with the 11 documented last month the total observed is 47. There were also four individual sea lions observed with fresh shark bites throughout the entire month. Also at least 3 animals were showing symptoms of domoic acid poisoning.

**Steller Sea Lions** –Overall numbers decreased this month with a marked absence of adult females and their yearlings in the usual spots at IHB and SB intertidal along with DSLF and SLC. An adult male was seen on one occasion in the middle of the month. On average there were 36 (±14) animals. The high count was 55 on the 11th.

**Northern Elephant Seal –** By the 29th of February there were only a total of 5 cows and pups remaining on SEFI’s breeding colony (1 pair in Mirounga Beach and 4 pairs on Sand Flat). All but one cow should wean within the first week of March except one cow whose pup is only 14 days old. No additional pups died this season since the January report. However, one weaned pup did fall into breaker cove and was washed out to sea. We currently have 36 pups that successfully weaned from Sand Flat and 2 from Mirounga Beach. During the WEI census on the 27th there were a total of 20 animals including 3 cows, 2 pups, 12 weaned pups, 1 immature, 1 SA3 and 1 bull. We believe that a number of weaned pups from WEI have started to venture into the water as mystery weaned pups have started to show up in the breeding colonies on SEFI. This would account for the reduced number of weaned pups compared to the pups counted on the previous WEI trip.On average there were 114 (±29) animals counted during census. The high count was 144, including 76 cows and 35 pups, and 4 weaned pups on the 1st.

**Harbor Seal –** As usual overall numbers were highly variable this month and heavily dependent upon tide and swell conditions (high tide or swell results in reduced haul out areas).The average count for the month was 28 (±32) with a high count of 72 on the 18th.

**Northern Fur Seals** –Overall numbers increased from last month. The average count from standard lighthouse surveys was 42 (±38) animals. During the WEI census on February 27th, there were a total of 159 animals counted, including 5 adult males and 14 sub-adult males.

**Cetaceans**

There were 33 one hour standardized whale watches conducted this month using the Apple iPad and Spotter App. The high count for the month was 32 Gray whales observed on the 25th. The first confirmed sighting of a humpback whale occurred during a standard survey on 29th of February. There were also 6 unidentified whales observed. Dolphins were seen on four days this month with a high count of 900 common dolphins seen on the 6th. Most numbers presented below for this month come from these watches although some incidentals were seen and presented in the total.

**Gray Whale** – there were a total of 260 detected this month with the first northbound animals seen on the 15th. No calves have been detected from the island yet.

**Common Dolphin** – Large pods of warm water common dolphins were seen on three days this month; 900 on the 6th, 350 on the 7th, and 250 on the 15th.

**Unidentified Dolphin** – A large pod of 250 dolphins were seen a long distance from the island on the 8th but could not be identified to species.

**Unidentified Whale** – A total of 6 whales were detected but could not be identified to species (1 on the 21st, 23rd and 24th and 3 on the 25th).

**Sharks**

No shark attacks noted but several Zalophus were observed with shark bites throughout the month.

**Salamanders**

The standard mark recapture surveys were conducted on the 2nd and 16th. We found 31 salamanders on the 2nd (1 tiny, 1 small and 29 large) and 29 on the 16th (1 tiny, 1 small and 27 large). The island wide survey was conducted on the 28th and resulted in 35 individuals seen (2 tiny, 2 small, and 31 large). As in previous island wide surveys, the majority of the animals detected were above K-plot on Little Lighthouse Hill although a high number were also observed along the Lighthouse Hill Trail and especially on the NW side that leads down to NL. Many boards on the Marine Terrace were not sampled in order to minimize disturbance to resting Zalophus.

**Owls**

The winter crew continued monitoring Burrowing owls this month by conducting daily roost surveys for presence/absence of owls at burrows. For most of the month there were one to three owls observed. The high count was 5 owls (all but one are thought to be banded) observed on the 4th. Birds seen this month included birds roosting at PRBO catacombs, Coast Guard catacombs, Sea Pigeon Gulch, Lighthouse Hill, and Little Lighthouse Hill. There was also one Barn owl present on the island throughout the month.

**Crickets**

The first round of quarterly cricket surveys were conducted this month but not to completion. On the 11th, 13th and 15th crickets were surveyed at Rabbit, Spooky, Corm Blind and North Landing Caves. However, surveys at “Cricket Cave” on the NW side of Shubrick were not surveyed for safety reasons. The protocol is currently being evaluated and once an agreement is made crickets will be sampled at “Cricket Cave”.

**Inverts and Intertidal**

On Feb 19th we observed a large number (>1,000) of pyrosomes (tunicates) that had washed up in many of the gulches around the island.

**Violations**

None noted this month.

**Maintenance**

Island biologist Berger and Warzybok conducted routine maintenance checks on the PV system and generators weekly**.** Monthly changes of water filters, crane greasing and outboard motor operation were also conducted. Also of importance: some flashing was repaired on part of the CG House after being blown off during the high winds earlier in the month, pieces of the railing on the cart path were repaired, the 8 hp Honda was brought out to the island via helicopter and run extensively in the ocean during a boat landing training day, and a new water pump and plumbing was installed at the pump house and water was successfully pumped from the cistern to the gravity tank. The pump protector switch (called coyote switch) was fixed on the water pump so that it can now run in the “Auto” setting and will shut off if the system loses it’s prime. In the anti-maintenance department: the pull start on the 15 hp Honda was broken during engine testing on the water and the flywheel needs to be removed in order to properly fix, during the install of the new plumbing and pump there appears to be a leak in valve 3 in the pump house which is allowing water to back flow into the gaff filter which then overflows if the lid is not shut and tightened. We are still using the demand pump to supply water to the house until the gravity tank can be repaired (needs a confined space permit).

**Maintenance Needs**

* Repair liner in the Gravity tank
* Regular door on the power house is broken and needs to be replaced. The frame is split, the hinges stretched and the concrete block around the door frame is broken at two of the attachment points. The door no longer aligns with the frame and is currently wedged closed with a piece of wood but can still be opened with removal of the wood.
* The 30Kwh Kohler “Speedwagon” has a small but persistent coolant leak apparently emanating from the water pump. The bolts on the water pump need to be tightened with a torque wrench to the proper specifications to see if that will stop the leak. Otherwise, it is likely that the water pump gasket will need to be replaced.
* The dumper jet battery appears to be losing its charge quickly despite regular recharges. The reason for the rapid discharging is not known. The batteries are fairly new so the issue may be with the charger not bringing them up to full capacity.
* On-demand hot water heater in PRBO house is not functioning at all
* Water supply lines have developed several leaks over the last few months and need to be replaced.
* New battery temperature sensors for PV system (arrived on island but still need to be installed)
* Cistern is losing water at a rate ~250 gallons per month and needs to be inspected.
* Settling Tank appears to have a leak in it when water is above 5.1 feet
* Some of the wooden railing on Light House Hill needs repair.
* Cart path rail line needs several major repairs.
* Webasto heater is not functioning and needs a new fuel pump.
* Clean water line going to upstairs bathroom in PRBO house needs to be cleared to increase water pressure.
* PRBO upstairs toilet needs to be fixed so it flushes properly. It is currently on clean water and we are employing the rule of “its yellow so let it mellow”.
* Drain line from PRBO kitchen sink needs to be replaced.
* Front door and frame to PRBO house are rotting at bottom corner and need to be repaired or replaced. The weather stripping for all doors needs to be replaced to keep out weather, flies, and mice.
* Refurbishment of North Landing platform

**Solar/Electric**

**PV System**

Weekly checks were conducted by Berger on Wednesdays. All PV checks went well and the system appears to be functioning properly.

**Generator run times**

White Kohler (Buffy): 4.8 hours

Black Kohler (Speedwagon): 11.8 hours

PV Kohler: 3.0 hours

Webasto: Not working

Power Used: Start of month = 51,226; end of month = 51,704 for total of 478kwh

**Fuel Reserves**

Fuel Remaining:

Drums: 81/2 X 55g = 467 gallons

PV Kohler Tank: Full

White Kohler Tank: Full

Black Kohler Tank: 3/4

Webasto Tank: 1/4 full

**Water Reserves**

Cistern: 100,000 gallons (7’4”)

Gravity Tank: empty

Settling Tank: 1.85 feet

No water was pumped this month. Water use at PRBO house water meter was 1,314 gallons.

**Fishing & Sightseeing Boats**

Kitty Kat seen twice this month on the 20th with 17 POB and 27th but no POB counted.

Happy Daze was seen on the 6th with 10 POB.

**Non-breeding birds**

Pacific Loon, Eared Grebe, Northern Fulmar, Sooty Shearwater, **Brown Booby (high count of 32 on the 25th and seen with nesting material on multiple occasions), Blue-footed Booby (an adult male seen displaying breeding behavior to a Brown Booby)**, Northern Gannet, Brown Pelican, Surf Scoter, Black Scoter, Common Goldeneye, Canada Goose, Peregrine Falcon, Western Willet, Wandering Tattler, Whimbrel, Black Turnstone, Heermann’s Gull, Mew Gull, Herring Gull, Thayer’s Gull, Glaucous-winged Gull, Glaucous Gull, Black-legged Kittiwake, Barn Owl, Burrowing Owl, Anna’s Hummingbird, Black Phoebe, Rock Wren, Audubon’s Warbler, Myrtle Warbler, Sooty Fox Sparrow, Golden-crowned Sparrow, Red-winged Blackbird.