**Farallon Island NWR**

**Monthly Report**

**March 2016**

Biologist: Ryan Berger, Russ Bradley & Pete Warzybok

**Island Visitors**

Point Blue crew this month included: Carlo Acuña, Cassie Bednar, Ryan Berger, Russ Bradley, Emma Chiaroni, Sarah Guitart, Scarlett Hutchin, Taylor Nairn, Kiah Walker and Pete Warzybok.

Additional island visitors this month included:

Jonathan Shore and Gerry McChesney from USFWS;

Mike McGoey, Chris Harris and Luis Bernal from NexGen to perform annual service on the PV system and to begin upgrading the electrical grid on the island;

Scott Webster and Richard Varner from AllCal to perform the annual inspection and maintenance on the cranes;

Jof Lassof to install the new web camera at the lighthouse;

Barbara Holzman, Richard Chasey, Quentin Clark, Kerstin Kalchmayr, and Lauren Scheinberg from SFSU to conduct an island-wide invasive plant survey.

**Mar 15:** “**Outer Limits”** (skipper Jim Robertson) brought out Jonathan Shore, Mike McGoey, Chris Harris, Luis Bernal, Scott Webster, Richard Varner, Russ Bradley, Sarah Guitart and Jonathan “Jof” Lassoff. Ryan Berger, Emma Chiaroni, Scarlett Hutchin and Taylor Nairn departed. Andrew Cole from FWS toured the island.

**Mar 19:** “**Outer Limits”** (skipper Jim Robertson) brought Gerry McChesney, Barbara Holzman, Richard Chasey, Quentin Clark, Kerstin Kalchmayr and Lauren Scheinberg. Departing were Jonathan Shore, Scott Webster, Richard Varner and Jof Lassoff. Two toured the island**.**

**Mar 27:** “**Outer Limits”** (skipper Jim Robertson) brought out Jonathan Shore, Peter Winch, Suzy Romanowicz, Marie Strassburger, Kelsey Richardson, Isaiah Thalmayer and Olivia Andrus for Team Spinach and Point Blue personnel Carlo Acuña, Kiah Walker and Pete Warzybok. Barbara Holzman, Richard Chasey, Lauren Scheinberg, Kerstin Kalchmayr, Mike McGoey, Chris Harris, Luis Bernal, Russ Bradley and Gerry McChesney departed.

**West End Island Visitors**

**Mar 24:** Gerry McChesney, Richard Chasey, and Quentin Clark visited West End to conduct invasive plant surveys.

**Weather/Ocean**

The month of March was highly varied with several storms, periods of strong winds and large swells and a few days of warm calm weather at the end of the month. There was a total of 4.95 inches of rainfall recorded this month. Mean noon day air temperature was 14.25°C, with a standard deviation of 0.88°C. The highest air temperature was 17.5° C recorded at 1500 hours on the 1st. The lowest temperature was 10.0° C recorded at 0600 hours on the 28th and 29th. Mean sea surface temperature was 12.87°C, with a standard deviation of 1.23°C, a high of 13.89°C on the 1st and a low of 10.13°C on the 30th.

**Oiled & Entangled Things**

**Western Gull** – On March 15th, there were two oiled gulls, one on the Marine Terrace and one by Heligoland with 10-20% oiling on the body.

**Common Murre** – One oiled murre seen at East Landing with about 30% of it body oiled on the breast and sides at the water line.

**Zalophus** – There were a total of 26 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 –** There have been few storm-petrels observed this month but depredated ASSP have been found around the island. Standardized wing walk surveys were started on March 18th. A total of 9 carcasses have been noted this month.

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

**Brandt’s Cormorant** – A few birds in breeding plumage have been seen roosting around the island but overall numbers have been very low this month.

**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 many thousands were regularly seen on territory throughout the day. By the end of the month, gulls were fighting over territories and beginning to build rudimentary nests.

**California Gulls –** Numbers noticeably increased during March with birds roosting in the normal breeding areas on the Marine Terrace and Sea Pigeon Point.

**Common Murre –** Murres have been attending the colony in large numbers throughout the month and banded bird resighting has been conducted daily throughout the latter half of the month.

**Pigeon Guillemot –** The first guillemots of the season were detected on March 9th with numbers increasing slowly throughout the month.

**Cassin’s Auklet –** Cassin’s were attending the island on most dark nights beginning in early March. The first check of nest boxes was conducted on March 2nd and the first egg was observed on March 17th in a box by the house. This was unexpectedly early considering the warm water conditions during the winter which typically result in delayed breeding. There were an additional 8 breeding birds discovered during the known-age box check on the 29th.

**Rhinoceros Auklet –** Small numbers of auklets have been seen on the water around the island and a few were seen attending burrows at night. There were also several freshly dead individuals (all killed by Peregrine Falcons) were documented this month.

**Tufted Puffin –** The first puffins of the year were seen off of Shubrick Point on March 31st.

**Black Oystercatchers** – Oystercatchers have been seen pairing up on territories around the island during the last month and foraging in the intertidal.

**Canada Goose –** As many as 10 geese have been present on the island throughout March and three nests have been located. At least one and possibly two additional pairs are present but do not appear to have established a nest.

**Pinnipeds**

**California Sea Lion** –Overall numbers were relatively low throughout the month but animals continue to haul out high on the marine terrace, around the landings and by the cistern. On average there were 2,675 (±305) animals counted during pinniped census from the lighthouse. The high count was 3,009 on the 17th. 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 144 aborted fetuses observed around the island, bringing the total for the year to 191. There were also eight dead animals of varying ages (mostly immature) seen around the island this month and two animals with evidence of fresh shark bites.

**Steller Sea Lions** –Overall numbers remained low during March but were higher than last month. There were no adult males observed this month. On average there were 55 (±21) animals. The high count was 82 on the 17th.

**Northern Elephant Seal –** The last pup weaned on March 16th and all breeding males had departed the island by the 17th. Many immature animals and cows that had previously departed the island started to show up at the island to molt during the second half of the month. On average there were 118 (±60) animals counted during census. The high count was 199, including 55 cows, 15 weaned pups and 109 immature animals on the 31st.

**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 86 (±60) with a high count of 139 on the 3rd.

**Northern Fur Seals** –Overall numbers have decreased slightly from last month. The average count from standard lighthouse surveys was 30 (±19) animals. The high count was 43 on both the 3rd and the 31st.

**Cetaceans**

There were 12 one hour standardized whale watches conducted this month using the Apple iPad and Spotter App. The high count for the month was 20 Gray whales observed on the 2nd. Humpback whales were seen sporadically throughout the month and the first confirmed sighting of a blue whale occurred during a standard survey on 29th of March. There were also 9 unidentified whales observed. Dolphins were seen on three days this month with a high count of 100 common dolphins seen on the 1st and 25 Risso’s dolphins seen on the 30th. Most numbers presented below for this month come from standardized watches although some incidentals were seen and presented in the total.

**Gray Whale** – there were a total of 99 detected this month, most headed north.

**Humpback Whale** – there were 22 seen during March on 7 days with more regular sightings towards the end of the month.

**Blue Whale** – There was just one observed in March, but this is fairly early for this species.

**Common Dolphin** – There were just 2 sightings of the warm water common dolphins early this month. There were 100 on the 1st and 12 on the 2nd.

**Risso’s Dolphin** – A small pod of 25 animals was seen to the west of the island on the 30th.

**Sharks**

No shark attacks noted but two Zalophus were observed with shark bites early in the month.

**Salamanders**

The standard mark recapture surveys were conducted on the 1st and 14th. We found 44 salamanders on the 1st (43 large, 1 small) and 43 on the 14th (40 large, 2 small and 1 tiny). The island wide survey was conducted on the 30th and resulted in 14 individuals seen (11 large, 1 small and 2 tiny). As in previous island wide surveys, the majority of the animals detected were above K-plot on Little Lighthouse Hill. It was a warm day and the Zalophus were down near the water so we were able to sample all boards. Most boards on the Marine Terrace were pressed down into the soil by the Zalophus herds and only 1 salamander was seen anywhere on the terrace (under a board at the end of the road to nowhere).

**Owls**

We have continued to monitor Burrowing owls by conducting daily roost surveys for presence/absence of owls at burrows. For most of the month there were one to three owls observed. Birds seen this month included birds roosting at PRBO catacombs, Coast Guard catacombs, and Heligoland. There was also one Barn owl present on the island throughout the month based on occasional auditory detections and the presence of predated carcasses. One barn owl was flushed from a large crevice on West End (part way up Maintop South) during a vegetation survey on the 24th. Several pellets were collected from the roost (including two that were just Cassin’s Auklet skulls), and at least one CAAU wing was present.

**Crickets**

Nothing of note this month.

**Inverts and Intertidal**

We observed a thousands of pyrosomes (tunicates) washing up in the gulches between 1 and 3 March.

**Violations**

None noted this month.

**Maintenance**

Island biologist Berger, Bradley 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: re-built the cover for the cistern, replaced ozonator UV and diffuser bulbs and installed a new pool filter in the cistern, conducted deep clean of the PRBO house in preparation for the seasonal switch, pumped water from settling tank to cistern using new pump and valve configuration, repaired door on Pipe Shop, replaced the pull start on the Honda 15hp motor, performed full yearly service on PV and Buffy generators, replaced weather stripping on the front door of the PRBO house, drained flood water from the pipe shop, and temporarily fixed door to Powerhouse. We are still using the Davey on-demand pump to supply water to the house until the gravity tank can be repaired (needs a confined space permit).

AllCal contractors Scott Webster and Richard Varner performed the annual maintenance and inspection of the East and North Landing cranes. Included in the maintenance tasks this year were: replacing the boom tip sheave, lubricating and inspecting all connection points, installing a new derrick block on the boom tip, changed the batteries and re-aligned the A2B unit, adjusted all winch brakes, installed hoist and slew brake auto lubrication cartridges, replaced the thrust bearing on the load block hook, adjusted tension on the slewing cables, applied corrosion treatment to all crane parts. Scott also replaced a damaged fan belt on Speedwagon and determined that the Buffy generator can no longer operate the crane at all.

NexGen contractors Mike McGoey, Luis Bernal and Chris Harris performed the routine annual maintenance on the PV system including testing, cleaning and charging all the batteries and inspecting all equipment. In addition, they completed phase 1 of the electrical power distribution project by installing temporary power cables between the CG house and Lighthouse as well as between the Powerhouse and the living quarters. They also disconnected and removed all old wiring, including the armored cable leading to the lighthouse, abandoned phone cables and a previously abandoned power cable. They installed the support system for a new aerial conduit that is to be installed later in the year and removed all construction debris and disused equipment.

**Maintenance Needs**

* Repair liner in the Gravity tank
* Repair gray water system. The pump will not build enough pressure to flush the toilets anymore. We think the problem may be with the expansion tank but troubleshooting needs to be done to confirm the issue.
* Regular door on the power house is broken and needs to be replaced. A temporary repair was done in late March by FWS volunteer Peter Winch and it is working for now. However, the frame is split and the concrete block around the door frame is broken at two of the attachment points.
* 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
* Webasto heater is not functioning and needs a new fuel pump.
* Water supply lines have developed several leaks over the last few months and need to be replaced.
* 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, although this has apparently occurred for many years.
* Some of the wooden railing on Light House Hill still needs repair.
* Cart path rail line needs several major repairs.
* 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 on Wednesdays. All PV checks went well and the system appears to be functioning properly.

**Generator run times**

White Kohler (Buffy): 15.9 hours

Black Kohler (Speedwagon): 36.9 hours

PV Kohler: 28.3 hours

Webasto: Not working

Power Used: Start of month = 51,704; end of month = 52,373 for total of 669kwh

**Fuel Reserves**

Fuel used during Mar: 41.5 gallons

Fuel Remaining:

Drums: 6 ⅞ X 55g = 378 gallons

PV Kohler Tank: Full

White Kohler Tank: Full

Black Kohler Tank: Full

Webasto Tank: 1/4 full

**Water Reserves**

Cistern: 110,000 gallons (7’11”)

Gravity Tank: empty

Settling Tank: 2.20 feet

No water was pumped this month. Water use at PRBO house water meter was 6,424 gallons.

**Fishing & Sightseeing Boats**

Kitty Kat seen twice this month on the 18th with 58 POB and 20th with ~20 POB counted.

**Non-breeding birds**

Pacific Loon, Red-necked Grebe, Eared Grebe, Black-footed Albatross, **Brown Booby (high count of 28 on the 19th), Blue-footed Booby**, Northern Gannet, Brown Pelican, Surf Scoter, Cackling Goose, Canada Goose (mostly breeders but a couple of migrants), **Bald Eagle,** Peregrine Falcon, Western Willet, Wandering Tattler, Whimbrel, Black Turnstone, Herring Gull, Thayer’s Gull, Glaucous-winged Gull, Glaucous Gull, Rock Pigeon, Eurasian Collared Dove, Barn Owl, Burrowing Owl, Northern (red-shafted) Flicker, Black Phoebe, Rock Wren, Golden-crowned Kinglet, Ruby-crowned Kinglet, Hermit Thrush, Orange-crowned Warbler, Audubon’s Warbler, Myrtle Warbler, Sooty Fox Sparrow (3 wintering birds), Golden-crowned Sparrow (3 wintering, 1 migrant), Oregon Junco.