

Farallon Islands Monthly Report

Report to the U.S. Fish and Wildlife Service

Farallon National Wildlife Refuge

December 2017

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**Point Blue Conservation Science –**Point Blue advances conservation of birds, other wildlife and ecosystems through science, partnerships and outreach. Our highest priority is to reduce the impacts of habitat loss, climate change, and other environmental threats while promoting nature-based solutions for wildlife and people, on land and at sea. Visit Point Blue on the web [www.pointblue.org](http://www.pointblue.org).

**Island Visitors**

Point Blue crew this month included: Trevor Barclay, Piero Becker, Ryan Berger, Boo Curry, Garrett Duncan, Sierra Lammers, Sarayu Ramnath, Kathryn Roy, April Surgent, Jim Tietz, and Jaclyn Tolchin.

December 2: “**USCG Helicopter**” delivered Jonathan Shore from USFWS.

December 4: “**Specialized Helicopter**” delivered Scott Webster and departed with Boo Curry.

December 5: “**John A. B. Dillard Jr.**”(Skipper Kixon Meyer) helped with the seasonal switch. Trevor Barclay, Piero Becker, Ryan Berger, Garrett Duncan, Sarayu Ramnath, Kathryn Roy, and April Surgent arrived and the boat departed with Jaclyn Tolchin and Jim Tietz. 2 crew members toured the island.

December 6: “**129th Air National Guard HH60 Helicopter**” brought out supplies for the fire alarm project, a replacement #12 PV battery and new contactors for the derrick.

December 8: “**Specialized Helicopter**” departed with Scott Webster.

December 11: “**USCG Helicopter**” departed with Jonathan Shore.

December 15: “**USCG Helicopter**” brought out the intertidal crew: Laura Anderson, Maya George, Dave Lohse, Rob Ricker, Jan Roletto and Sara Worden.

December 17: “**Valkyrie**” (Skipper Jamis MacNiven) brought out supplies and departed with Sierra Lammers and Sarayu Ramnath.

December 18: “**USCG Helicopter**” departed with the intertidal crew.

December 30: “**Starbuck**” (Skipper John Wade) departed with Ryan Berger. 6 crew members toured the island.

**West End Island Visitors**

December 12: Ryan Berger, Garrett Duncan, Sierra Lammers and Sarayu Ramnath visited West End Island to conduct pinniped research.

December 27: Trevor Barclay, Piero Becker, Ryan Berger, Garrett Duncan, Kathryn Roy, April Surgent visited West End Island.

**Weather/Ocean**

The weather in December was somewhat variable but dry. Winds were equally split between the northwest and southeast and there were no major storm events. There were 0.14 inches of precipitation recorded, most of which fell during one event. Mean midday air temperature was 14.5° C, with a standard deviation of 1.9° C. Mean sea surface temperature was 12.85° C, with a standard deviation of 0.74° C, a high of 13.96° C on the 31st, and a low of 11.73 ° C on the 20th. Mean SST was approximately 0.44° C warmer than the long-term mean for this month, and 0.93° C warmer than last December.

**Oiled & Entangled Wildlife**

Thirteen California sea lions, one immature Steller Sea Lion and one immature Northern Elephant Seal, were noted to have monofilament, packing straps or an unknown substance embedded or tightly wrapped around their neck. Three Western Gulls were observed with fishing hooks and line in their mouths. A 5% oiled Glaucous-winged Gull was seen on Mussel Flat on the 11th and a 10% oiled Western Gull was seen in Sea Pigeon Gulch on the 23rd.

**Breeding Birds**

**Storm-Petrels** – The last monitored nest near Rabbit Cave fledged on the 9th. An Ashy Storm-petrel skull was discovered during dissection of an owl pellet from the 13th.

**Brandt’s, Pelagic, and Double-crested Cormorant** – Brandt’s and Pelagic Cormorants were regularly present at roost sites in the morning and evening.

**Western Gull** – Attendance in the colony has been increasing over the month with some roosting in intertidal areas as well.

**California Gulls** – Approximately 5-25 birds have been seen in regular evening roost sites or on the water.

**Common Murre** –Numbers have been increasing throughout the month in typical breeding areas, sometime in great numbers. On the 14th, at least 100,000 were seen on the island, West End and the Islets.

**Pigeon Guillemot, Rhinoceros Auklet and Tufted Puffin** – Very few Rhinoceros Auklets were observed on the water throughout the month, but no Tufted Puffins or Pigeon Guillemots were seen.

**Cassin’s Auklet** –Only a few nights this month Cassin’s Auklets returned to the island to dig and sing.

**Black Oystercatchers** – Some birds are still attending territories, but larger wintering roosting groups frequent Low Arch and Mussel Flat.

**Pinnipeds**

**California Sea Lion***–* Numbers of California sea lions steadily decreased throughout December. On average there were 2,037 (SD ± 216) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 2,311 individuals on the 12th. 25 fecal samples were processed from both July and September and another 13 were processed in December. All fish hard parts are back at the lab in Petaluma awaiting identification.

**Steller Sea Lions** –On average there were 91 (SD ± 16) individuals counted, with a high count of 113 on the 14th.

**Northern Elephant Seal** –Numbers of elephant seals decreased over the month as more immature individuals depart the island. The average total count of the island was 279 (SD ± 50) individuals. The high count was 339 on the 14th. Three bull Elephant seals arrived as well as 9 sub-adult males. The arrival of the first pregnant cow was on the 25th and the first pup of the season was born on the 29th. At the end of the year, there were 6 cows and 2 pups. This is one of the latest starts to the breeding season in our long-term time series.

**Harbor Seal** –Harbor seal numbers were highly variable. On average there were 55 (SD ± 42) individuals counted. The high count was 115 on the 14th, with a low count of 25 on the 29th.

**Northern Fur Seals** – Fur seals attendance dropped considerably. The mean count from the lighthouse was 71 (SD ± 17) individuals, with a high of 87 on the 14th.

Two trips to West End Island were made on the 12th and 27th. We counted an average of 205 (SD ± 124) total individuals from Breaker Cove to Indian Head Beach. We read 1 Monel tag, and 11 blue Allflex tags from pups tagged in September.

**Cetaceans**

**Standard Survey** – Twenty seven one-hour whale watches were conducted this month from the Lighthouse using the Apple iPad and Spotter App. Two whale watches were conducted on 7 of the days this month. Daily incidental observations were also recorded.

Gray whales were seen almost daily, with a maximum of 10 on the 21st. Humpback whales were seen sporadically, with a maximum of 17 on the 1st and decreasing to only a couple individuals every few days. Blue whales were seen two days this month, with a maximum of 2 seen on the 1st. Nine Risso’s Dolphins was seen on the 29th, and a pod of 4 Orca Whales were seen on the 12th.

**Sharks**

No shark activity was observed.

**Salamanders**

Standard salamander surveys were conducted on the 2nd and 15th. Eleven and seven salamanders were found under cover boards respectively. An all-island cover board census was conducted on the 28th. Eight salamanders were found and Chytrid swabs samples were collected.

**Owls**

Burrowing owl numbers stabilized by the end of the month. There were 2 new arrivals on the 5th that were not seen subsequently. The daily high count of 7 individuals was seen on the 1st, 5th and 12th. Only one owl was banded this month on the 9th. As the density of mice on the island declined, BUOW pellets contained an increasing number of beetle carapaces. On the 13th, a pellet dissection revealed an Ashy Storm-petrel skull.

**Crickets**

No cricket surveys were conducted but a few individuals were spotted in Rabbit Cave, underneath cover objects and inside the greywater valve box.

**Mice**

Two mouse surveys were conducted this month beginning on the 12th and 29th. Trap success was 30% and 8% respectively.

**Inverts and Intertidal**

# Jan Roletto and the intertidal crew scouted and marked sampling plots, and formulated a plan to switch plot monitoring from GFNMS to MARINe. One Ochre star with level 2 wasting was seen in Jewel cave and 16 other healthy stars were seen as well. A sample of *Pterocladiella capillacea*(red algae) was collected and, if confirmed, is the northernmost sighting on record.

**Plants**

A concerted effort was made to pull New Zealand Spinach on the Marine Terrace and commonly traveled areas on West End Island.

**Violations**

In December we recorded one fishing violation within the SE Farallon State Marine Reserve and one boat diving within the 300’ special closure.

**Maintenance**

Island biologists Duncan and Berger 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. The Webasto unit was repaired, a new exhaust was installed and is now operational. A new derrick winch motor was installed and tested by Scott Webster and East Landing is now operational. All components were thoroughly greased. The winch handle wing nut at North Landing was repaired.

**Maintenance Needs**

* Repair liner in the Gravity tank
* NL latch is broken and boat house door no longer stays closed. Need to replace stainless steel latch.
* The dumper jet battery appears to be losing its charge quickly despite regular recharges. It appears to be a bad battery.
* Cistern is losing water at a rate ~250 gallons per month and needs to be inspected. There appears to be a much more sizable leak when the cistern is above 8’6”.
* Settling Tank appears to have a leak in it when water is above 5.1 feet.
* Some of the wooden railing on Lighthouse Hill needs repair.
* Drain line from PRBO kitchen sink drains slowly and 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.
* New screens are needed on the PRBO house to keep out flies on “warm” days.
* Refurbishment of North Landing platform. Fabricate and install stainless steel guides for poles.
* Replace window blinds in PRBO bathrooms and kitchen.
* Corrosion of the cart path rail system appears to be accelerating and will need to be addressed soon, perhaps repaired with the old galvanized pipe when the water lines are replaced.
* Washing machine door lock is beginning to fail. It requires a bit of finesse to close and sometimes will get stuck in lock mode.
* Several separations have been seen on the East landing derrick slewing rope. Perhaps tightening the slewing rope will mitigate this issue slightly until replacement.
* The PRBO house kitchen counters especially around the sink are continuing to deteriorate. Replacement sometime this year is recommended.

**Solar/Electric**

**PV System**

* A new #12 battery replacement was delivered to the island and awaits installation.

**Generator run times**

Kohler 15ROZ (Buffy): 11.5 hours

Kohler 30REOZJC (Speedwagon): 19.2 hours

Kohler 40REOZK (Zeke): 13.3 hours

Kohler 15ROY61 (Peevey): 6 hours

Webasto: 2.5 hours

Power Used this month: Start = 64,237; End = 65,012 for total of 775 kwh

**Fuel Reserves**

Fuel used in December: 32 gallons

Drums: 5.5 X 55g = 302.5 gallons

Kohler 15ROZ (Buffy) Tank: Full

Kohler 30REOZJC (Speedwagon) Tank: Full

Kohler 40REOZK (Zeke) Tank: Full

Kohler 15ROY61 (PV) Tank: Full

Webasto Tank: Full

**Water Reserves**

Cistern: ~90,000 gallons (6’10”)

Gravity Tank: empty

Settling Tank: empty

Water use at house meter was 3,848 gallons.

**Sightseeing Boats**

During December, 2 sightseeing boats visited the Farallones. The **Happy Days** was seen three times with an average of 23 POB. The **Huli Cat** was seen once with 13 POB. The **Akula** was seen once with only the crew on board.

**Non-breeding birds**

Pacific Loon, Eared Grebe, Northern Fulmar, Sooty Shearwater, Brown Pelican, Aleutian Cackling Goose, Surf Scoter, American Kestrel, Peregrine Falcon, Wandering Tattler, Whimbrel, Black Turnstone, Rock Sandpiper, Wilson’s Snipe, Pomarine Jaeger, Mew Gull, California Gull, Herring Gull, Thayer’s Gull, Glaucous-winged x Herring Gull, Glaucous-winged x Western Gull, Glaucous-winged Gull, Glaucous Gull, Ancient Murrelet, Band-tailed Pigeon, Barn Owl, Burrowing Owl, Anna’s Hummingbird, Black Phoebe, Barn Swallow, Rock Wren, Ruby-crowned Kinglet, Varied Thrush, American Robin, Sage Thrasher, European Starling, American Pipit, Audubon’s Warbler, Western Palm Warbler, Fox Sparrow, White-throated Sparrow, White-crowned Sparrow, Golden-crowned Sparrow