

Farallon Islands Monthly Report

Report to the U.S. Fish and Wildlife Service

Farallon Islands National Wildlife Refuge

December 2018

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**Island Visitors**

**Point Blue crew**: Garrett Duncan, Preston Duncan, Rae Engert, John Garrett, Leah Kerschner, Joey Negreann, Marine Quintin, Sarayu Ramnath, Jon Schneiderman, Jim Tietz.

December 2: **“Salty Lady”** (skipper Jared Davis) departed with Charles Whitefield, Jose Leyva, and John Garrett.

December 6: “**Starbuck”** (skipper John Wade) brought out the winter crew consisting of Garrett Duncan, Leah Kerschner, Marine Quintin, Jon Schneiderman and Sarayu Ramnath, and departed with Jim Tietz, Preston Duncan, and Joey Negreann.

December 19: **US Coast Guard helicopter** delivered jugs of water and food and departed with Rae Engert.

December 25: **Santa**.

**West End Island Visitors**

Duncan, Kerschner, Schneiderman and Quintin visited WEI on the 22nd for pinniped research.

**Weather/Ocean**

Of the wind observations this month, 42% was blowing from the northwest, 32% from the east and 29% from the south. The sky had an average cloud cover of 56%. A total of 1.79 inches of rain fell, the bulk of which fell on the 17th. Mean midday air temperature was 14.3° C, with a standard deviation of 1.24° C. The highest air temperature was 17° C recorded mid-day on the 17th, the lowest was 11° C recorded on the mornings of the 22nd and the 31st. Mean sea surface temperature was 14.03° C, with a standard deviation of 0.49° C, with a high of 14.85° C on the 19th, and a low of 12.75° C on the 31st. Mean SST was approximately 1.55° C higher than the long-term mean for this month, and 1.18° C higher than last December. The mean SST for all of 2018 was 12.63° C, which is 0.03° C lower than our dataset mean, and 0.27° C lower than last year.

**Oiled & Entangled Wildlife**

Three Western Gulls and one Common Murre were seen with 15-25% oil coverage.

Seven Zalophus were observed with monofilament, netting or an unknown material either embedded or tight around their necks. One Western gull was observed with monofilament tightly entangling its feet.

**Breeding Birds**

**Storm-Petrels** – No individuals were observed.

**Brandt’s Cormorant** – Large numbers were seen on Sugarloaf and various cliffs around the island.

**Pelagic Cormorant** – Individuals were observed roosting near-daily on cliffs around the island.

**Double-crested Cormorant** – No individuals were observed.

**Western Gull** – Large groups were seen in roosting flocks on the Marine Terrace, Shell Beach, and Aulon Peninsula, or observed bathing in the bays. Towards the end of the month daily attendance of some nesting areas has been observed.

**California Gulls** – Individuals have been observed near-daily in roosting flocks on the island and in the surrounding waters.

**Common Murre** – Murre numbers were highly variable. Many days they were seen in very high numbers in the typical colony areas but sometimes were nearly absent from the island and surrounding waters.

**Pigeon Guillemot** – No individuals were observed.

**Rhinoceros Auklet** – No individuals were observed.

**Tufted Puffin** – No individuals were observed.

**Cassin’s Auklet** – Several individuals were occasionally seen on the water around the island.

**Black Oystercatchers** – Pairs were seen in typical nesting areas, as well as a large roosting flock on Low Arch.

**Pinnipeds**

**California Sea Lion***–* On average there were 2,564 (SD ± 179) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 2,806 individuals on the 28th.

**Steller Sea Lions** –On average there were 72 (SD ± 3) individuals counted, a high count of 76 on the 13th.

**Northern Elephant Seal –** Numbers of immature elephant seals gradually decreased with the arrival of large males and several cows. An average total count of 253 (SD ± 33) individuals was counted. By the end of the month there were 12 breeding sized males and 3 cows. Of those, two have pupped but only one pup survived.The

**Harbor Seal –** Harbor seal numbers were variable, due to the variety of tide and swell conditions during the weekly census. On average there were 34 (SD ± 16) individuals counted, a high count of 55 on the 28th.

**Northern Fur Seals** – Fur seal numbers were much lower. The mean of the weekly lighthouse census counts was 91 (SD ± 41) individuals, with a high of 143 on the 13th. On the trip to West End, 169 individuals were observed.

**Cetaceans**

**Standard Survey** – Nine one-hour standard whale watches were conducted this month from the Lighthouse using the Spotter App. Daily high counts from standard watches and incidental observations are summarized below.

A couple gray whales (1 or 2) were seen 6 days this month. Humpback whales were seen on four days this month, with a high count of 9 on the 23rd.

**Sharks**

One predation event on pinnipeds was observed off Sea Pigeon Point on the 6th. A large male Mirounga was discovered in Sewer Gulch on the 29th with a large shark bite.

**Salamanders**

Two surveys were conducted this month: 10 were found on the Dec 2nd survey (6 large, 2 small and 2 tiny) and 32 were found on the Dec 15th survey (21 large, 7 small and 4 tiny).

**Owls**

Daily standardized surveys concluded with the departure of the BUOW intern but the winter crew continued to monitor known roosting locations. 11 birds were seen in known locations and 2 incidental owls were seen. One was near the Habitat Sculpture on the 9th and another banded (but not read before flying) individual was seen the 22nd on West End near Jordan Channel. The high-count for the month was seven on the 7th, 12th, 27th and 28th. One owl was banded on the 8th.

**Crickets**

No surveys were conducted.

**Bats**

None were observed.

**Mice**

One mouse trapping session was conducted this month from the 17th to 20th with a 29% capture rate.

**Inverts and Intertidal**

An impressive number of jellyfish were washed onto the island during the period of high swells at the end of the month. One Red Admiral butterfly was seen on the 23rd.

**Plants**

With the increase of damp winter weather, Farallon weed, New Zealand Spinach, Common nettle and pigweed have sprouted and are growing in great abundance.

**Violations**

Three fishing violations were reported to California Fish and Wildlife this month.

**Maintenance**

Island biologist Duncan conducted routine maintenance checks on the PV system and generators weekly. Monthly changes of water filters and outboard motor operation were also conducted as well as monthly crane greasing.

**Maintenance Needs**

* The locking mechanism on the Crane Control Panel needs to be fixed or replaced. Sometimes it fails to lock the door when the main disconnect switch is in the on position.
* The circuit that powers the downstairs overhead lights in the PRBO house has a short.
* The PV and Buffy generators are supposed to automatically start to give themselves monthly exercise. This is not happening, though, so they need to be manually started for exercise. (Exercise not needed during the winter months.)
* Restore water service to the island.
* The cistern and other elements of the water catchment system are showing their age and are need of major repairs or replacement. The cistern continues to lose water at a rate ~250 gallons per month.
* The Settling Tank also appears to have a leak in it when water is above 5.1 feet.
* Many of the wooden railing on Lighthouse Hill needs repair.
* 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. The cart is falling of the tracks in several places now. Spot repairs have been made and plans for more extensive repairs are underway.
* Several separations have been seen on the East Landing derrick slewing rope, possibly from jogging the slew. These do not appear to be getting any worse.
* Several inches of water accumulate in the pipe shop after a good rain. A new threshold is needed to seal the door.
* Several grease points on the crane are having difficulty taking grease. The powered grease gun is also starting to have issues with priming and having more difficulties getting a good seal on the fittings. It may be time to talk seriously about auto-greasing mechanisms or a new style of grease fittings.
* There are several broken sections of pipe around the island which have received temporary repairs with compression sleeves. These sections of pipe will need to be replaced in the near future to prevent further leaks once water service is restored.
* The kitchen drain is not draining well. I propose abandoning the current plumbing and installing new pipes outside the house that connects the three sinks in the house to the graywater system.
* The water meter seems to be reading erroneously high usage values. (Considering the water was only run for 14hrs the entire month)
* The PRBO house kitchen counters especially around the sink are continuing to deteriorate. Replacement sometime in the next year is recommended.
* The downstairs toilet in the PRBO house has accumulated graywater deposits and will not syphon properly.

**Solar/Electric**

**PV System**

Distilled water reserves: 88 gallons

**Generator run times**

Kohler 15ROZ (Buffy): 21.7 hours

Kohler 30REOZJC (Speedwagon): 10.3 hours

Kohler 40REOZK (Zeke): 10.9 hours

Kohler 15ROY61 (Peevey): 11.9 hours

Webasto: 1.5 hours

Power Used this month: Start = 73,432; End =74,000; for total of 568 kwh

**Fuel Reserves**

Diesel fuel used in December: 39.9 gallons

Drums: 0x 55g = 0 gallons

Kohler 15ROZ (Buffy) Tank: 2/3

Kohler 30REOZJC (Speedwagon) Tank: Full

Kohler 40REOZK (Zeke) Tank: Full

Kohler 15ROY61 (PV) Tank: Full

Webasto Tank: 1/4 Full

Surplus gasoline for boat motors: 3 gallons

Safeboat tank: Full

Zodiac tank: Full

**Water Reserves**

Cistern: Unknown

Gravity Tank: empty

Settling Tank: 5’

Water was pumped to the house for ~14 hours this month and the meter at house read 4914 gallons.

**Sightseeing Boats**

No sightseeing boats were seen around the island.

**Non-breeding birds**

Pacific Loon, Eared Grebe, Pink-footed Shearwater, Sooty/Short-tailed Shearwater, Blue-footed Booby, Brown Booby, Northern Gannet, Brown Pelican, Brant, Peregrine Falcon, Wandering Tattler, Whimbrel, Ruddy Turnstone, Black Turnstone, Red Phalarope, Heermann’s Gull, Mew Gull, California Gull, Herring Gull, Iceland Gull, Glaucous-winged Gull, Ancient Murrelet, Barn Owl, Burrowing Owl, Long-eared Owl, Anna’s Hummingbird, Black Phoebe, Rock Wren, American Robin, Varied Thrush, European Starling, Cedar Waxwing, Audubon’s Warbler, Myrtle Warbler, Palm Warbler, Fox Sparrow, White-throated Sparrow, Harris’s Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, Dark-eyed Junco, and Western Meadowlark.