

Farallon Islands Monthly Report

Report to the U.S. Fish and Wildlife Service Farallon Islands National Wildlife Refuge

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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.

Island Residents

Point Blue crew: Danielle Butts, Abigail Crowder, Garrett Duncan, Alix Gibson, Grace Kumaishi, Emily Lam, Paul Ruiz-Lopez, and Pete Warzybok.

Island Visitors

January 5th: “Valkyrie” (skipper Jamis MacNiven) brought out Emily Lam and departed with Alix Gibson. 3 people toured the island

January 18th: “French Kiss” (skipper Harmon Shragge and Don Bauer) brought out Alix Gibson, Grace Kumaishi, and Pete Warzybok and departed with Abigail Crowder, Garrett Duncan, and Emily Lam. Two people toured the island.

January 23rd: “Outer Limits” (skipper Jim Robertson) brought out Andrew Carothers-Liske, Jesse Irwin, Steve Lewis, Jonathan Maier, and Gerry McChesney. Tyrone Conner and Ruth Sadowitz from USCG-ATON toured the island and Michael McCarthy inspected the telecommunications antenna and mounts to determine needed replacement parts.

January 29th: “Salty Lady” (skipper Jared Davis) brought out Ryan (a generator mechanic from Industrial Electric) and Reid Miller (FWS volunteer and master plumber) for the day and departed with Andrew Carothers-Liske, Jesse Irwin, Steve Lewis, Jonathan Maier, and Gerry McChesney. 1 person toured the island and Ryan attempted to repair to the two PV generators.

West End Island Visitors

January 3rd: Butts, Duncan, and Ruiz-Lopez conducted pinniped counts and recorded tag resights.

January 28th: Carothers-Liske, Gibson, Irwin, Kumaishi, Maier, McChesney, and Warzybok recorded tag resights and did a census of the Mirounga rookery.

Weather & Ocean

The weather on the island this month was very dry, with predominately northwest winds, but with 23% of the wind coming from the southeast. The island received 2.57 inches of precipitation, which mostly fell during the rains on the 16th. The average midday air temperature was 12.8 ± 1 °C, which was 0.5 °C warmer than the long-term average for January. The low for the month was 8.5 °C at 6 AM on the 15th and the 17th and a high of 14.5 °C was recorded at multiple times throughout the month. The average sea surface temperature was 12.47 ± 0.28 °C, with a low of 11.92 °C on the 19th and a high of 13.15 °C on the 1st. This was 0.11 °C warmer than the long-term average for January.

Oiled & Entangled Wildlife

No oiled wildlife was observed this month.

Nine California Sea Lions were observed to be entangled with monofilament, packing straps, or an unknown material.

Breeding Birds

Storm-Petrels – None detected this month.

Brandt’s Cormorant – Several hundred adults and immatures were observed at typical roost locations such as Sugarloaf, North Landing, and West Head.

Pelagic Cormorant – Several dozen roosted at typical sites such as North Landing, Sugarloaf, Blowhole Peninsula, and Sea Pigeon Gulch.

Double-crested Cormorant – None were seen on the island.

Western Gull – Many adults were on territories at dawn, but most dispersed throughout the day. Increasing numbers were observed using the island’s shoreline to roost at typical locations such as Mussel Flat, Low Arch, Shell Beach, and Aulon Peninsula.

California Gulls – Variable numbers seen in typical gull roosting areas on Mussel Flat, Low Arch, and in the water.

Common Murre – Numbers were highly variable between very low numbers in the island's surrounding waters to near full colony attendance.

Pigeon Guillemot – None were seen on the island.

Rhinoceros Auklet – One alternate adult was photographed by Carothers-Liske visiting a burrow at The Gap on the evening of January 28.

Tufted Puffin – None were seen.

Cassin's Auklet – Increasing numbers of birds returned to the island on dark nights to vocalize and excavate nest sites, with high vocal activity on early mornings during the new moon period. Few birds were observed on the water near the island.

Pinnipeds

California Sea Lion – On average there were 3,286 (SD \pm 730) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 4,288 individuals on the 31st. Sea Lion Cove, Dead Sea Lion Flat, and Aulon Peninsula were the areas with the highest density of sea lions.

Steller Sea Lions – On average there were 84 (SD \pm 10) individuals counted on the standard weekly survey, with a high count of 94 on the 31st.

Northern Elephant Seal – Breeding adult attendance was at its peak with 63 cows and 10 large males by the end of the month. Also by the January 31st census there were 42 pups and 2 weaned pups. Immature attendance fell from 127 to only 7 individuals.

Harbor Seal – Harbor seal numbers fluctuated greatly with tide and swell conditions during the weekly census. On average there were 66 (SD \pm 30) individuals counted, with a high count of 102 on the 17th.

Northern Fur Seals – Numbers fluctuated from a low count of 26 individuals on the 2nd to 87 on the 10th. There was an average of 64 (SD \pm 23) individuals counted.

Cetaceans

Standard Survey – 39 one-hour standard whale watches were conducted from the Lighthouse using the Spotter App when conditions allowed. Numbers from standard watches were combined with incidental observations. Gray Whales were observed around the island 28 days this month, with a high count of 24 on the 23rd.

Sharks

A sub-adult male *Zalophus* with a fresh shark bite was seen at Last Resort.

Salamanders

One survey was conducted this month on the 16th and 24 large, 3 small and 2 tiny were found.

Owls

Roost surveys were conducted daily, and only two owls have been observed.

Crickets

No surveys this month.

Bats

No bats were detected this month.

Mice

House mouse numbers have declined substantially since the fall months. They are rarely seen.

Inverts and Intertidal

No butterflies or dragonflies were seen.

Oceanic Events

Nothing to report.

Plants

Spergularia macrotheca, *Erodium moschatum*, *Cotula squalida*, *Stellaria media*, and *Oxalis pes-caprae* seen blooming on the island. A *Chlorophyllum brunneum* mushroom was found near the powerhouse, rare in the SF bay area. Several mostly larger *Malva*, *Chenopodium*, and a few New Zealand spinach were pulled at SEFI, and several *Malva*, *Chenopodium* (mostly sprouts), and spinach plants were pulled on WEI.

Violations

No violations were observed.

Maintenance

Island biologists Duncan and Warzybok conducted routine weekly maintenance checks on the PV system and generators. Monthly changes of water filters, water testing, and crane greasing were conducted.

Plumbers Carothers-Liske and Maier, along with various assistants, replaced multiple corroded sections of the outdoor water lines and hose spigots (which was found to be *completely* clogged

up and draining under the house), replaced the drain lines for the PRBO kitchen sink and clothes washer, and buried the house drain line that runs along the west side of the house into the septic system.

USFWS Maintenance worker Steve Lewis did a major pruning of both Monterey Cypress trees, repaired a hole in the CG House rear mud room, and replaced cut flooring and walls from the PRBO House plumbing project.

FWS Volunteer Jesse Irwin repaired several sections of the rail cart path between Twitville and East Landing, diagnosed and replaced a bad electrical switch to the CG House kitchen light, replaced fallen gutters on the Carp Shop, and valiantly attempted to trouble-shoot PV generator issues.

Ryan from Industrial Electric visited the island on January 29 and attempted to repair the two PV generators, neither of which is working. He was unsuccessful and recommended parts.

Maintenance Needs

- The PV and Buffy generators are not functioning due to either fried voltage regulators or motherboards, or a bad wrap.
- 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.
- The Settling Tank measuring stick came undone and fell into the tank.
- Many sections of the wooden railing on Lighthouse Hill need repair.
- Several inches of water accumulate in the pipe shop after a good rain. There could be a crack in the foundation.
- The PRBO house kitchen counters especially around the sink continue to deteriorate. Replacement sometime in the next year is recommended.
- The HADS weather station is no longer transmitting data to the web. Attempts to reset the unit have failed, and will require expert guidance to fix.
- The Fisherman's Bay mooring ball has drifted away and needs replacement.
- The gutters and flashing on both houses is degrading and will need to be improved or replaced.
- The Webasto is not working.

Solar/Electric

PV System

Distilled water used:	7 gallons
Distilled water reserves:	20 gallons

Generator run times

Kohler 15ROZ (Buffy):	10.3 hours	(1830.4 on meter)
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Kohler 30REOZJC (Speedwagon):	5.6 hours	(641.9 on meter)
Kohler 40REOZK (Zeke):	15.2 hours	(432.7 on meter)
Kohler 15ROY61 (Peevey):	21.1 hours	(3954.2 on meter)
Webasto:	0 hours	

Power use

Facilities power use: Start = 82,190; End =82,786; for total of 596 kWh

Fuel Reserves

Diesel used:	68 gallons
Diesel drums: 11.25 @55gal:	620 gallons
Kohler 15ROZ (Buffy) Tank:	Full
Kohler 30REOZJC (Speedwagon) Tank:	Full
Kohler 40REOZK (Zeke) Tank:	Full
Kohler 15ROY61 (Peevey) Tank:	½ Full
Webasto Tank:	Full
Surplus gasoline for boat motors:	6 gallons
6 gallon boat tank:	Full
3 gallon boat tank:	Full

Water Reserves

Water used this month: Start = 279,085; End =281,468; for a total of 2,383 gallons

Cistern:	7'6" or ~102,860 gallons
Gravity Tank:	empty
Settling Tank:	~4 feet

Sightseeing Boats

No sightseeing boats were observed this month.

Non-breeding birds

Eared Grebe, Sooty Shearwater, Brown Booby, Northern Gannet, Brown Pelican, Canada Goose, Surf Scoter, Black Scoter, Peregrine Falcon, Wandering Tattler, Spotted Sandpiper, Whimbrel, Ruddy Turnstone, Black Turnstone, Rock Sandpiper, Mew Gull, Ring-billed Gull, California Gull, Herring Gull, Iceland (Thayer's) Gull, Glaucous-winged Gull, Glaucous Gull, Ancient Murrelet, Band-tailed Pigeon, Barn Owl, Burrowing Owl, Northern Saw-whet Owl, Anna's Hummingbird, Black Phoebe, Rock Wren, Ruby-crowned Kinglet, Hermit Thrush, American Robin, Yellow-rumped (Audubon's) Warbler, Yellow-rumped (Myrtle) Warbler, Black-throated Gray Warbler, Townsend's Warbler, Fox Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, Western Meadowlark