

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 Visitors

Point Blue crew: Rachel Bañuelos, Garrett Duncan, Mike Johns, Leah Kerschner, Haley Land-Miller, Sophia Prisco, Marine Quintin, Sarayu Ramnath, Jon Schneiderman, Amanda Spears.

Contractors: Charles Whitefield. **USFWS:** Ed Van Til.

March 3rd: **“Starbuck”** (skipper John Wade) brought out Sarayu Ramnath, Rachel Bañuelos, and Charles Whitefield. Departed with Jon Scheiderman, Leah Kerchner, and Sophia Prisco. 3 people toured the island.

March 4th: **“Huli Cat”** (skipper Tom Mattush) brought out Ed Van Til, Louis Terrajar, Gerry McChesney. 2 people toured the island.

March 6th: **US Coast Guard helicopter** departed with Louis Terrajar.

March 8th: **US Coast Guard helicopter** departed with Ed Van Til.

March 16th: **“French Kiss”** (skipper Harmon Schragge) brought out Sophia Prisco and Amanda Spears. Departed with Rachel Bañuelos. 2 people toured the island.

March 26th: 2 **US Coast Guard helicopters** brought out 16 55-gallon drums of diesel, 3 new refrigerators. Louis Terrajar assisted with operations. Departed with 3 old Sunfrost fridges and Charles Whitefield. 2 UC Berkeley seismologists inspected the seismometer equipment.

March 30th: **“Valkyrie”** (skipper Jamis MacNiven) brought out Haley Land-Miller and Mike Johns for the seasonal switch. Departed with Garrett Duncan, Sarayu Ramnath, and Marine Quintin. 3 people toured the island.

West End Island Visitors

March 11th: Duncan, Quintin and Ramnath visited West end for the last pinniped census of the season.

Weather/Ocean

Wind was predominantly from either the west or north (85% of daily observations), and occasionally from the south or east (15%) during approaching low pressure systems. The island received 4.12 inches of rain in March, most of which occurred during the first 2 weeks on the month. The range of midday air temperatures fell within the long-term normal range for this month, with an average of 13.47 °C. This was 0.67 °C higher than the long-term average for March (Fig. 1). The upper range of sea surface temperature (SST) readings from the island peaked above the long-term range for this month, with an average of 12.67 °C. This was 0.3 °C higher than the long-term average SST for March (Fig. 1).

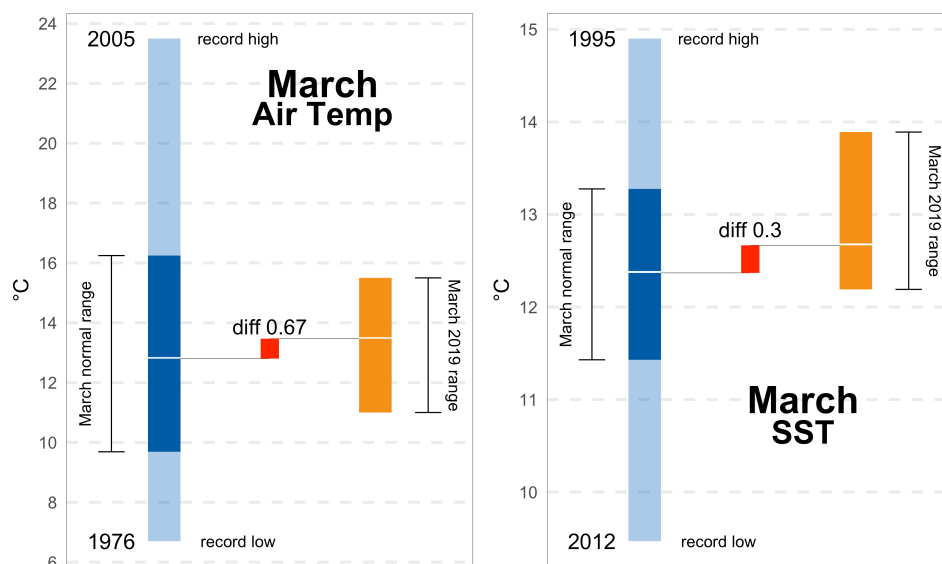


Figure 1. Noon air and sea surface temperature data summary. Light blue depicts the long-term (1971 – 2018) range of observations with years given for record highs and lows, dark blue shows the long-term “normal” range (average highs and lows). Orange depicts the range of current (2019) observations. Differences between the long-term and current means are shown in red if above normal, and blue if below normal.

Oiled & Entangled Wildlife

Common murre with black oil covering ~30% of breast were sighted on March 7th and 8th.

Seven *Zalophus* and 1 *Eumotopias* were observed with monofilament, rope, packing straps or an unknown material either embedded in their neck or tight around their body.

Breeding Birds

Storm-Petrels – Charles Whitefield completed the “Ashy Hotel” on March 26th, located just off the Cart Path near Heligoland. Ashy calls could be heard throughout the month, first noted on March 9th.

Brandt’s Cormorant – The first birds were seen displaying and gathering nest material at Sea Lion Cove and Corm Blind sub-colonies on March 31st.

Pelagic Cormorant – Several individuals were observed flying with nest material on March 31st.

Double-crested Cormorant – No individuals were observed.

Western Gull – Some individuals were beginning to defend territories, and copulation was observed later in the month. Numbers were still anecdotally low in followed plots and across the island.

California Gulls – Small groups of ~5 were observed near-daily in roosting flocks on the island and in the surrounding waters.

Common Murre – Birds continued to sporadically attend colonies.

Pigeon Guillemot – First bird of the season was observed on March 4th. Larger rafts of >100 individuals were seen later in the month.

Rhinoceros Auklet – First bird seen at East Landing on March 8th. Small numbers were periodically seen on the water.

Tufted Puffin – No individuals were observed.

Cassin’s Auklet – The first PRBO and Known-age study box checks were conducted on March 2nd and March 18th respectively. Seven boxes were occupied on the March 18 check, none with eggs. A high volume and saturation of Cassin’s calls was noted during the night of the 22nd.

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 2,642 (SD \pm 589) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 3,610 individuals on the 11th.

Steller Sea Lions – On average there were 67 (SD \pm 26) individuals counted, with a high count of 98 on the 14th.

Northern Elephant Seal – On both islands combined there was an average of 69 (SD \pm 37) individuals counted. There was an average of 12 (SD \pm 2) breeding sized males. On SEFI, there were only 4 cow-sized individuals seen, and all pups were gone by the end of the month.

Harbor Seal – Counts were variable, due to the variety of tide and swell conditions during the weekly census. On average there were 47 (SD \pm 45) individuals counted, with a high count of 96 on the 28th.

Northern Fur Seals – The average of the weekly lighthouse census counts was 98 (SD \pm 23) individuals, with a high of 122 on the 14th. On the trip to West End, 122 individuals were observed.

Cetaceans

Standard Survey – 18 one-hour standard whale watches were conducted this month from the Lighthouse using the Spotter App. Four bottlenose dolphins were seen near the island on March 18th, the first confirmed record of this species from SEFI. Daily high counts from standard watches combined with incidental observations are summarized in Figure 2.

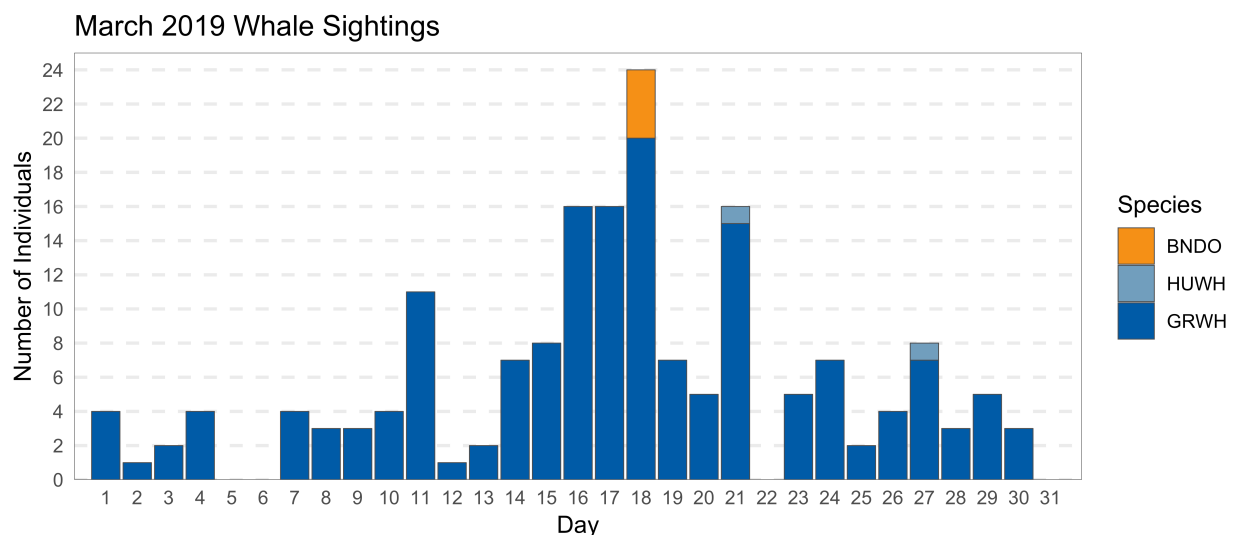


Figure 2. Daily high counts of Cetaceans from SEFI. HUWH = humpback whale, GRWH = gray whale, BNDO = bottlenose dolphin.

Sharks

No predation events this month.

Salamanders

Three standard surveys were conducted: 55 were found on March 2nd (46 large, 5 small and 4 tiny), 20 on the 14th (14 large, 5 small and 1 tiny), and 50 on the 27th (44 large, 4 small and 2 tiny).

Owls

A total of 5 Burrowing Owls were seen in the daily surveys of known roosting locations. Owl banded as 1004-10624 was found dead behind the “Burning Bush” on March 14th, likely from starvation.

Crickets

No cricket surveys were conducted this month.

Bats

None were observed.

Mice

Two mouse trapping sessions were conducted, starting on the 9th with a 19% capture rate and the 27th with a 6% capture rate.

Inverts and Intertidal

The crew visited Jewel Cave on March 19th.

Oceanic Events

A water spout was seen at 1600 hours 3 miles northeast of the island on March 10th. It held form for roughly 10 minutes.

Plants

Farallon Weed (*Lasthenia maritima*) started blooming island-wide at the beginning of the month. Invasive grasses were prolific from the wet conditions, particularly on the Marine Terrace and Lighthouse Hill.

Violations

No violations were observed this month.

Maintenance

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

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. This is not a pressing matter as the auxiliary lights are working well.
- The PV and Buffy generators are supposed to automatically start to give themselves monthly exercise. This is not happening, requiring they be manually started for exercise. (Exercise not needed during the winter months.)
- 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 of the wooden railing on Lighthouse Hill needs repair.
- Several separations have been seen on the East Landing derrick slewing rope, possibly from jogging the slew. A couple more separations have appeared, possibly from the large storm events in the last couple of months.
- Several inches of water accumulate in the pipe shop after a good rain. A new threshold is needed to seal the door. Also, there could be a crack in the foundation.
- Several grease points on the crane are having difficulty taking grease.
- There are several broken sections of pipe around the island which have received temporary repairs with compression sleeves. Island-wide, the water pipes are in dire shape and need to be replaces.
- The kitchen drain is not draining well. I propose eventually abandoning the current plumbing and installing new pipes outside the house that connects the sinks and showers in the house to the graywater system.
- The water meter at the house is reading the proper volume of water again but I propose switching to the pump house meter, so we can monitor water use at the landing and other hose bibs along the cart path.
- The PRBO house kitchen counters especially around the sink continue to deteriorate. Replacement sometime in the next year is recommended.

Solar/Electric

PV System

Distilled water used:	15 gallons
Distilled water reserves:	65 gallons

Generator run times

Kohler 15ROZ (Buffy):	10.5 hours	(1732.0 on meter)
Kohler 30REOZJC (Speedwagon):	3.8 hours	(598.1 on meter)
Kohler 40REOZK (Zeke):	19.7 hours	(285.1 on meter)
Kohler 15ROY61 (Peevey):	9.8 hours	(3878.8 on meter)
Webasto:	0 hours	

Power use

Facilities power use: Start = 75,606; End = 76534; for total of 928 kWh

Fuel Reserves

Diesel used:	50 gallons
Diesel drums: 16 @55gal:	880 gallons
Kohler 15ROZ (Buffy) Tank:	1/2 Full
Kohler 30REOZJC (Speedwagon) Tank:	Full
Kohler 40REOZK (Zeke) Tank:	7/8 Full
Kohler 15ROY61 (Peevey) Tank:	7/8 Full
Webasto Tank:	Full
Surplus gasoline for boat motors:	10 gallons
Safeboat tank:	Full
Zodiac tank:	Full

Water Reserves

Water used this month: Start = 251,111; End = 254,530; for a total of 3,419 gallons	
Cistern:	8.5' or ~120,000 gallons
Gravity Tank:	empty
Settling Tank:	empty

Sightseeing Boats

No sightseeing boats were seen around the island.

Non-breeding birds

Red-throated Loon, Pacific Loon, Red-necked Grebe, Eared Grebe, Black-footed Albatross, Northern Fulmar, Sooty Shearwater, Blue-footed Booby, Brown Booby, Brown Pelican, Aleutian Cackling Goose, Canada Goose, Surf Scoter, Bald Eagle, Peregrine Falcon, Wandering Tattler, Whimbrel, Ruddy Turnstone, Black Turnstone, Pomarine Jaeger, Mew Gull, Herring Gull, Thayer's Gull, Glaucous-winged Gull, Glaucous Gull, Sabine's Gull, Black-legged Kittiwake, Ancient Murrelet, Eurasian Collared-dove, Barn Owl, Burrowing Owl, Black Phoebe, Say's Phoebe, Rock Wren, Hermit Thrush, American Robin, Varied Thrush, European Starling, Audubon's Warbler, Myrtle Warbler, Fox Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, Oregon Junco, Red-winged Blackbird, Western Meadowlark.