

## Farallon Islands Monthly Report

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

December 2019

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### Island Residents

**Point Blue crew:** Nik Aspey, Danielle Butts, Abigail Crowder, Garrett Duncan, Alix Gibson, Rya Rubenthaler, Paul Ruiz-Lopez, Melissa Simon, and Jim Tietz.

### Island Visitors

December 7<sup>th</sup>: USCG Helo brought out Garrett Duncan and departed with Jim Tietz.

December 8<sup>th</sup>: “French Kiss” (skipper Harmon Shragge) brought out Danielle Butts, Abigail Crowder, Alix Gibson, and Paul Ruiz-Lopez and departed with Rya Rubenthaler and Melissa Simon. Two people toured the island.

December 10<sup>th</sup>: “Huli Cat” (skipper Tom Mattusch) brought out Gerry McChesney, 4 contractors from Bonny Doon Environmental Services, and 4 USCG personnel for the day.

December 19<sup>th</sup>: “Starbuck” (skipper John Wade) brought out supplies for a Christmas feast and departed with Nik Aspey. Seven people toured the island.

## West End Island Visitors

December 20<sup>th</sup>: Abigail Crowder, Alix Gibson, and Garrett Duncan conducted pinniped counts and recorded tag resights.

## Weather & Ocean

The weather on the island improved throughout the month with predominately northwest winds, but with 25% of the wind coming from the southeast. The island received 5.96 inches of precipitation, which mostly fell during the storm on the 1<sup>st</sup> and 2<sup>nd</sup>. The average midday air temperature was  $13.4 \pm 0.8$  °C, which was 1.6 °C warmer than the long-term average for December. The low for the month was 10 °C at 6 AM on the 25<sup>th</sup> and the 30<sup>th</sup> and a high of 15.5 °C was recorded at 3 PM on the 12<sup>th</sup>. The average sea surface temperature was  $13.11 \pm 0.26$  °C, with a low of 12.59 °C on the 3<sup>rd</sup> and a high of 13.63 °C on the 14<sup>th</sup>. This was 1.12 °C warmer than the long-term average for December.

## Oiled & Entangled Wildlife

Three California Gulls were seen with black oil on December 3<sup>rd</sup>, 13<sup>th</sup>, and 15<sup>th</sup>. Coverage was 30%, 20% and 75% respectively.

Nine California Sea Lions and one Northern Fur Seal were observed to be entangled with monofilament, nylon rope, green netting, rubber rings, packing straps, or an unknown material. Ages of entangled California Sea Lions consisted of 3 immatures, 1 adult female and the rest sub-adult males.

## 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 End Head.

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

**Double-crested Cormorant** – One was observed roosting on Sugarloaf on December 16<sup>th</sup>.

**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 of individuals attending nesting areas increased throughout the month. Many days in the latter part of the month had the colonies in nearly full attendance.

**Pigeon Guillemot** – None were seen on the island.

**Rhinoceros Auklet** – None were seen on the island.

**Tufted Puffin** – None were seen.

**Cassin's Auklet** – Several birds returned to the island on dark nights to vocalize and excavate nest sites – overall numbers seemed low. Few birds were observed on the water near the island.

## Pinnipeds

**California Sea Lion** – On average there were 2,907 (SD  $\pm$  316) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 3,264 individuals on the 5<sup>th</sup>. Sea Lion Cove, Dead Sea Lion Flat, and Aulon Peninsula were the most important haul-outs.

**Steller Sea Lions** – On average there were 56 (SD  $\pm$  15) individuals counted on the standard weekly survey, with a high count of 79 on the 21<sup>st</sup>.

**Northern Elephant Seal** – Numbers counted on the standard weekly survey declined slightly by the end of the month with the arrival of larger breeding animals. On average there were 197 (SD  $\pm$  25) individuals counted, with a high count of 233 on the 5<sup>th</sup>. By the end of the month there were 9 larger males (SA3 or greater), 4 cows and 1 pup on SEFI.

**Harbor Seal** – Harbor seal numbers fluctuated greatly with tide and swell conditions during the weekly census. On average there were 36 (SD  $\pm$  33) individuals counted, with a high count of 74 on the 21<sup>st</sup>.

**Northern Fur Seals** – Numbers dropped suddenly mid-month, from a high of 150 individuals on the 5<sup>th</sup> to less than 40 for the other three surveys. There was an average of 66 (SD  $\pm$  49) individuals counted.

## Cetaceans

**Standard Survey** – 24 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 to determine daily estimated totals. An individual Humpback Whale was seen 3 days. Three Blue Whales were seen on the 24<sup>th</sup>. Gray Whales were observed around the island 19 days this month, with a high count of 12 on the 16<sup>th</sup>. Four Pacific White-sided Dolphins were seen on the 31<sup>st</sup>.

## Sharks

No predation events or sightings were detected this month.

## Salamanders

Two surveys were conducted this month. On the 15<sup>th</sup> 16 large, 1 small and 1 tiny were found and on the 31<sup>st</sup> 19 large, 1 small and 1 tiny were found.

## Owls

Roost surveys were conducted daily, and only one owl has been observed.

## Crickets

No surveys this month.

## Bats

No bats were detected this month.

## Mice

House mouse numbers have fallen throughout the month but were still frequently observed outside during the day.

## Inverts and Intertidal

No butterflies or dragonflies were seen. 3 beetles were collected from the lighthouse for DNA testing to determine if they are endemic.

## Oceanic Events

Nothing to report.

## Plants

*Sonchus* spp. (sow thistle) and *Plantago coronopus* (Buck's-horn plantain) were seen flowering near the weather station.

## Violations

On the 29<sup>th</sup> at 6am, a boat was seen off Shubrick spotlighting the entire east side of the island including the Murre colony. It departed as the island biologist was walking down the cart path. The boat was not identified.

## Maintenance

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

## Maintenance Needs

- The red blinking light on the East Landing circuit breaker box no longer works.
- Two holes inside the Coast Guard house (one in the ceiling of the rear entryway, and one adjacent to the mirror in the upstairs bathroom) need to be fixed to prevent mice from entering the house.
- 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 in 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.
- 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 replaced.**
- The kitchen drain is not draining well despite multiple attempts to clear it. Due to the age of the plumbing and the ongoing difficulty servicing pipes under the house, it may be necessary to abandon the current plumbing and install new pipes outside the house to connect the sinks and showers to the gray water system.
- The PRBO house kitchen counters especially around the sink continue to deteriorate. Replacement sometime in the next year is recommended.
- Slow but steady leak in the PRBO fire hose spigot.
- 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.
- Monterey cypress trees need to be pruned. The tree closest to the southeast side of the Coast Guard house rubs against the house during east winds. The other Coast Guard tree that fell in 2018 needs to be cut back.

## Solar/Electric

### PV System

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

### Generator run times

Kohler 15ROZ (Buffy):	18.7 hours	(1820.1 on meter)
Kohler 30REOZJC (Speedwagon):	4.8 hours	(636.3 on meter)
Kohler 40REOZK (Zeke):	17.1 hours	(417.5 on meter)

Kohler 15ROY61 (Peevey):	0 hours	(3933.1 on meter)
Webasto:	1 hour	

**Power use**

Facilities power use: Start = 81,555; End = 82,190; for total of 635 kWh

**Fuel Reserves**

Diesel used:	7.6 gallons
Diesel drums: 12.5 @55gal:	688 gallons
Kohler 15ROZ (Buffy) Tank:	Full
Kohler 30REOZJC (Speedwagon) Tank:	Full
Kohler 40REOZK (Zeke) Tank:	Full
Kohler 15ROY61 (Peevey) Tank:	Full
Webasto Tank:	Full
Surplus gasoline for boat motors:	10 gallons
6 gallon boat tank:	Full
3 gallon boat tank:	Full

**Water Reserves**

Water used this month: Start = 277,149; End = 279,085; for a total of 1,936 gallons	
Cistern:	7'5" or ~101,430 gallons
Gravity Tank:	empty
Settling Tank:	~3 feet

**Sightseeing Boats**

No sightseeing boats were observed this month.

**Non-breeding birds**

Pacific Loon, Common Loon, Eared Grebe, Northern Fulmar, Sooty Shearwater, Brown Booby, Northern Gannet, Brown Pelican, Surf Scoter, **Black Scoter**, Peregrine Falcon, Wandering Tattler, Spotted Sandpiper, Whimbrel, Ruddy Turnstone, Black Turnstone, Rock Sandpiper, Wilson's Snipe, Pomarine Jaeger, Heermann's Gull, Mew Gull, California Gull, Herring Gull, Iceland (Thayer's) Gull, Glaucous-winged Gull, Glaucous Gull, Black-legged Kittiwake, **Ancient Murrelet**, Band-tailed Pigeon, Mourning Dove, Barn Owl, Burrowing Owl, Northern Saw-whet Owl, Anna's Hummingbird, Northern (Red-shafted) Flicker, Black Phoebe, Rock Wren, Golden-crowned Kinglet, Ruby-crowned Kinglet, Hermit Thrush, American Robin, Varied Thrush, European Starling, American Pipit, Yellow-rumped (Audubon's) Warbler, Yellow-rumped (Myrtle) Warbler, Black-throated Gray Warbler, Townsend's Warbler, Savannah Sparrow, Fox Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, Dark-eyed (Oregon) Junco, Dark-eyed (Slate-colored) Junco, Western Meadowlark, Pine Siskin