

Farallon Islands Monthly Report

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

January 2021

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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.

Southeast Farallon Island Visitors

Point Blue crew: Mackenzie Cahill, Sabrina Dahl, Garrett Duncan, Rhett Finley, and Anna Pedersen.

January 20th: **“John A.B. Dillard Jr.”** (skipper Kixon Meyer) brought out food and supplies.

COVID-19: In response to ongoing concerns over impacts of this global pandemic, certain precautionary measures were taken this month to minimize the risk of COVID-19 infecting island personnel: The use of PPE was required by newly arriving interns prior to and during the landing; the frequency of regular supply runs was reduced from twice a month to once a month; no off-island breaks were granted to crew members; and no visitors were permitted to tour the island. Only essential personnel are currently permitted on the island until further notice.

West End Island Visitors

January 17th: Duncan, Finley, and Pedersen conducted Northern Elephant Seal and Northern Fur Seal counts and recorded tag resights.

January 29th: Cahill, Dahl, and Duncan conducted Northern Elephant Seal and Northern Fur Seal counts and recorded tag resights.

Weather/Ocean

Monthly weather is summarized in Figure 1. Light to moderate NW winds dominated this month. The island received 2.22 inches of rain this month, which fell predominantly between the 25th and 28th. Fog was noted on 15% of weather observations. The range of midday air temperatures fell within the long-term normal range for this month, with an average of 12.6 ± 1.8 °C. This was 0.31 °C higher than the long-term average for the month. Sea surface temperature (SST) readings from the island were notably lower than the long-term normal range for this month, with an average of 11.39 ± 0.27 °C. This was 0.89 °C below the long-term average for the month.

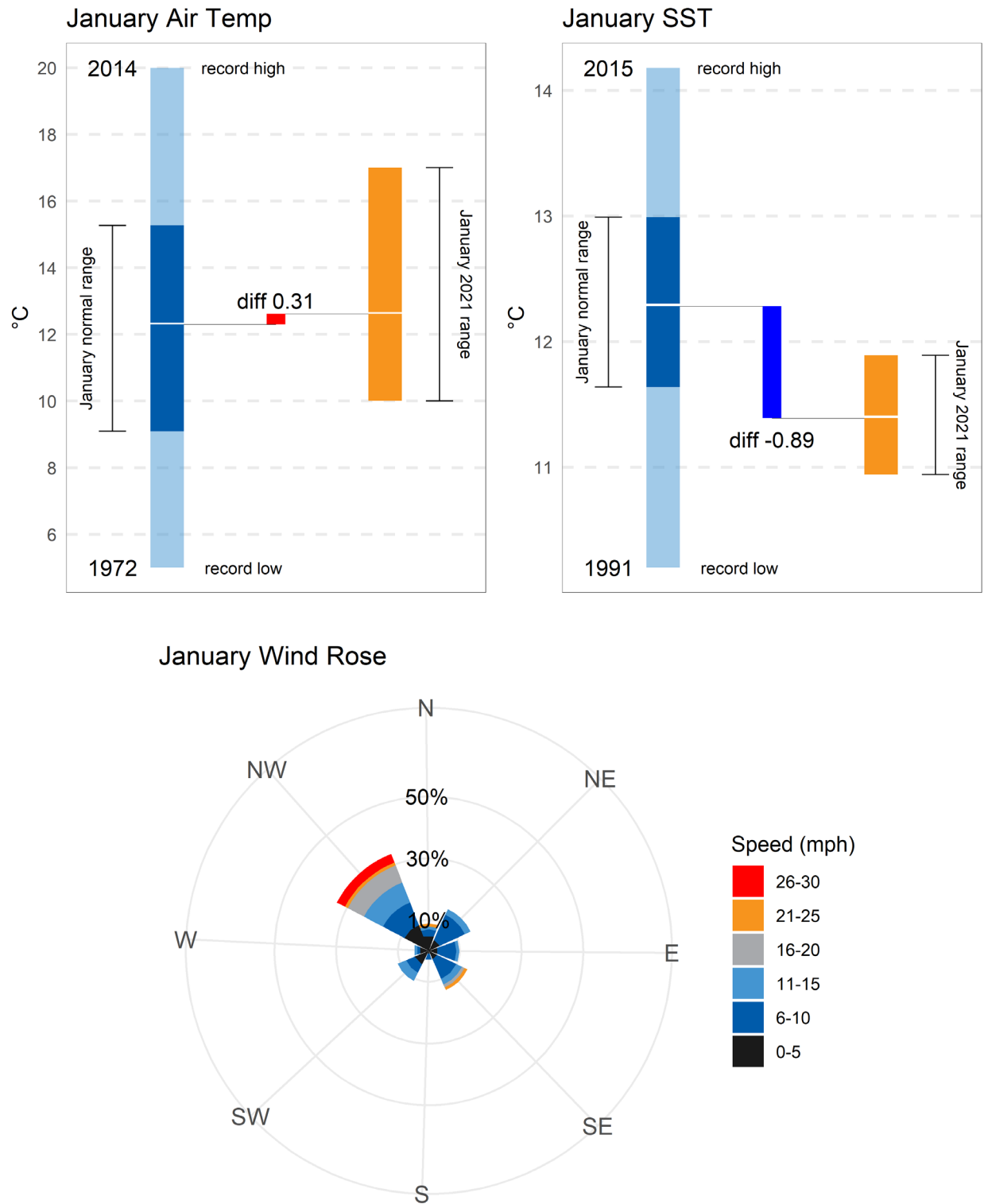


Figure 1. Noon air and sea surface temperature data summary. Light blue depicts the long-term (1971 – 2019) range of observations with years given for record highs and lows; dark blue shows the long-term range of averages for January. Orange depicts the range of current (2021) observations. Differences between the long-term and current means are shown in red if above normal, and blue if below normal. Daily wind speed (color scale) and

direction binned into sectors for morning, noon, and afternoon observations for this month. Larger bars indicate more wind from that direction.

Oiled & Entangled Wildlife

Sixteen *Zalophus* and one *Eumetopias* were seen with monofilament, packing strap, ropes or unknown material embedded in their necks.

One Common Murre on the 2nd and four Western Gulls on the 2nd, 7th, 29th, and 31st were seen covered with brown/black crude oil.

Breeding Birds

Storm-Petrels – Ashy Storm-Petrels were heard near Sea Lion Cove during cricket surveys on the 13th. No Leach's Storm-Petrels were detected this month.

Brandt's Cormorant – A few thousand birds were observed daily either roosting on offshore islets or feeding on the ocean.

Pelagic Cormorant – Approximately a hundred birds were observed daily roosting on cliffs. Breeding plumage has been observed starting early in the month.

Double-crested Cormorant – None were seen this month.

Western Gull – A few thousand birds were observed daily either roosting on the island or feeding on the ocean. In the early morning, a few thousand birds returned to their territories.

California Gulls – Low numbers were observed roosting on Sea Pigeon Terrace, Mussel Flat, and West Marine Terrace.

Common Murre – The Murre colony areas were fully occupied many days this month.

Pigeon Guillemot – The first of the season was seen flying near Indian Head on the 24th.

Rhinoceros Auklet – The first of the season was seen at Spooky cave during cricket surveys on the 13th.

Tufted Puffin – None were seen this month.

Cassin's Auklet – On most dark nights, large numbers of birds landed on the island to dig out nest sites and vocalize.

Black Oystercatchers – Individuals this month were usually seen either paired up along the shoreline or in the large roosting flock at Low Arch.

Pinnipeds

California Sea Lion – On average there were 2,771 (std \pm 524) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 3,509 individuals on the 28th. The majority of individuals were present on the north side of the island from Sea Lion Cove to Aulon Peninsula.

Steller Sea Lion – On average there were 97 (std \pm 24) individuals counted, with the high count of 120 on the 28th.

Northern Elephant Seal – Numbers increased throughout the month with the arrival of more breeding age animals. There was an average count of 100 (std \pm 20) individuals with a high count of 121 individuals on the 28th. Thus far, we have recorded 43 pups on SEFI and 30 pups on WEI. By the end of the month there were 54 cows, 34 pups, 3 weaned pups, and 6 large males on SEFI, and 40 cows, 27 pups, 2 weaned pups and 6 large males on WEI.

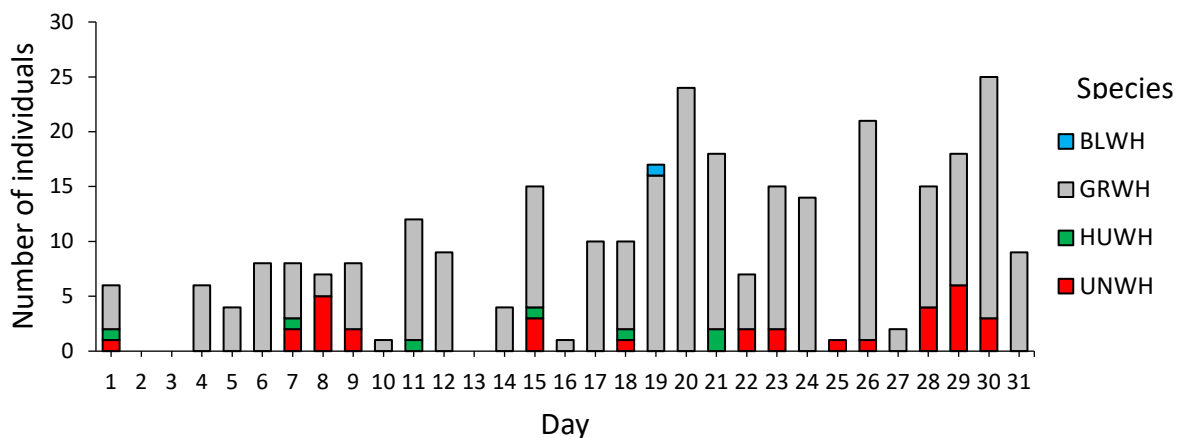
Harbor Seal – On average there were 29 (std \pm 27) individuals counted, with a high count of 61 on the 21st.

Northern Fur Seal – Numbers were very low for the first half of the month and then increased afterwards. On average there were 111 (std \pm 31) individuals counted, with the high count of 151 observed on the 21st. On the two trips to WEI, there were 254 and 375 individuals counted.

Cetaceans

Standard Survey – 29 one-hour standard whale watches were conducted this month from the Lighthouse using the Spotter App. Large numbers of Gray Whales were observed later in the month. Humpback Whales were seen intermittently throughout the month. A blue whale was seen on the 19th.

January 2021 Cetacean Sightings



Sharks

A shark was seen momentarily at the surface during sea watch on the morning of the 4th.

Salamanders

Salamander surveys were conducted on the 2nd, 14th and 30th, yielding 28, 59, and 49 individuals.

Owls

6 individuals were consistently seen in known roosting locations around the island. An ASSP furcula was discovered inside a fresh pellet on the 31st.

Crickets

Completed quarterly cricket surveys between the 13th and 21st. Locations and average numbers: Cricket Cave – 2,248, North Landing – 161, Rabbit Cave – 131, Spooky Cave – 199, Corm Blind Cave – 32, and the Gap Cave – 63.

Bats

No bats were detected this month.

Mice

Mice were infrequently detected this month.

Inverts

Two Painted lady butterflies were seen on the 20th. An enormous number of colonial tunicates/pyrosomes/“sea pickles” washed up on all the island beaches on the 7th.

Plants

Efforts to hand-pick invasive plants continue.

Violations

No violations were observed this month.

Maintenance

Island biologist Duncan conducted routine weekly maintenance checks on the PV system and generators. Monthly changes of water filters and crane greasing were conducted. One pre-landing crane training was conducted this month. Approximately 6,000 gallons of water was collected following the rain event on the 27th.

Maintenance Needs

- 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 has a leak in it when water is above 5.1 feet.
- 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 gutters and flashing on both houses are degrading and will need to be improved or replaced.
- Aluminum railings at East Landing and the lighthouse need repair.
- Powerhouse roof-access ladder mounts are badly corroded and need to be replaced.
- There is a small leak in the closet next to the downstairs bathroom in the PRBO house. The source was likely a hole underneath the eaves on the NW side of the house. Will continue to monitor.
- The load cell battery and antenna at the EL crane were replaced, but now the load cell needs to be recalibrated. A2B is also non-functional.
- The North Landing Jib crane needs to be power washed and a life ring hook installed on the rocks near the platform.
- The Speedwagon generator continues to encounter rotor lock shutdown faults. This is likely due to a bad starter solenoid.
- The cistern ozonator UV bulb casing started leaking air and is being replaced shortly.

Solar/Electric

PV System

Distilled water used:	0 gallons
Distilled water reserves:	40 gallons

Generator run times

Kohler 30REOZJC (Speedwagon):	0 hours	(672.6 on meter)
Kohler 40REOZK (Zeke):	7 hours	(549.1 on meter)
Kohler 15REOZK (PeeVee Herman):	29.7 hours	(29.7 on meter)
Webasto:	5 hours	

Power use

Facilities power use: Start = 89,137; End =89,710; for total of 573 kWh

Fuel Reserves

Diesel used:	24.6 gallons
Diesel drums: 7@55gal + 30 gal	415 gallons
Kohler 15REOZK (PV) Tank:	3/4

Kohler 30REOZJC (Speedwagon) Tank: Full
Kohler 40REOZK (Zeke) Tank: Full
Webasto Tank: Full
Gasoline for portable generator/boats: 25 gallons
6 gallon boat tank: Full
3 gallon boat tank: Full

Water Reserves

Water used this month: Start = 307,406; End = 309,723; for a total of 2,317 gallons
Cistern: 6' or ~75,000 gallons
Gravity Tank: empty
Settling Tank: 2'
Drinking water: 15 5-gal jugs

Sightseeing Boats

No sightseeing boats visited the island this month.

Non-breeding birds

Pacific Loon, Eared Grebe, Sooty Shearwater, Brown Booby, Northern Gannet, Brown Pelican, Canada Goose, Surf Scoter, Peregrine Falcon, Wandering Tattler, Whimbrel, Ruddy Turnstone, Black Turnstone, Rock Sandpiper, California Gull, Herring Gull, Thayer's Gull, Glaucous-winged Gull, Black-legged Kittiwake, Ancient Murrelet, Barn Owl, Burrowing Owl, Anna's Hummingbird, Black Phoebe, Rock Wren, Ruby-crowned Kinglet, Hermit Thrush, American Robin, Varied Thrush, Spotted Towhee, Savannah Sparrow, Fox Sparrow, Lincoln's Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, Red-winged Blackbird, Western Meadowlark.