

Farallon Islands Monthly Report

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

May 2019

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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: Sean Gee, Mike Johns, Cole Jower, Grace Kumaishi, Haley Land-Miller, Amy Miles, Theresa Rizza, Maya Sterett, Pete Warzybok. **UC Davis:** Josh Hull, Sarah Jennings. **San Jose State University:** Scott Schaffer.

May 7th: **“Outer Limits”** (skipper Jim Robertson) brought out Gerry McChesney (USFWS), Anne Morkill (USFWS), Pete Warzybok (PB), Zach Warnow (PB), Chris Geiger (SFDE), Deborah Raphael (SFDE), Jennifer Kass (SFDE), Lauren Garske (CCC), and Max Delaney (GFNMS) for informational tour of the island.

May 11th: **“Salty Lady”** (skipper Jared Davis) brought out Josh Hull and departed with Sarah Jennings.

May 20th: **“John A.B. Dillard Jr”** (skipper Kixon Meyer) brought out Maya Sterett, Cole Jower, Sean Gee, and Scott Shaffer. Departed with Amy Miles and Josh Hull. 3 people toured the island.

May 27th: **“Starbuck”** (skipper John Wade) brought out Pete Warzybok. 6 people toured the island.

Weather/Ocean

Unseasonably light to moderate south winds once again dominated the beginning of the month, switching to predominately moderate to strong NW winds towards the end of May (Fig. 1). The island received 3.88 inches of rain, nearly seven times more than the long-term average of 0.55 inches. This is the second highest accumulation for May, after a record 4.08 inches in 2005. The range of midday air temperatures peaked slightly above the long-term normal range for this month, with an average of 14.16 °C. This was 0.85 °C higher than the long-term average for May (Fig. 2). El Niño-like conditions persisted throughout the month of May, reflected in higher the normal sea surface temperature (SST). The upper range of SST readings from the island stayed above the long-term range for this month, with an average of 12.52 °C. This was 1.07 °C higher than the long-term average SST for May (Fig. 2).

May Wind Rose

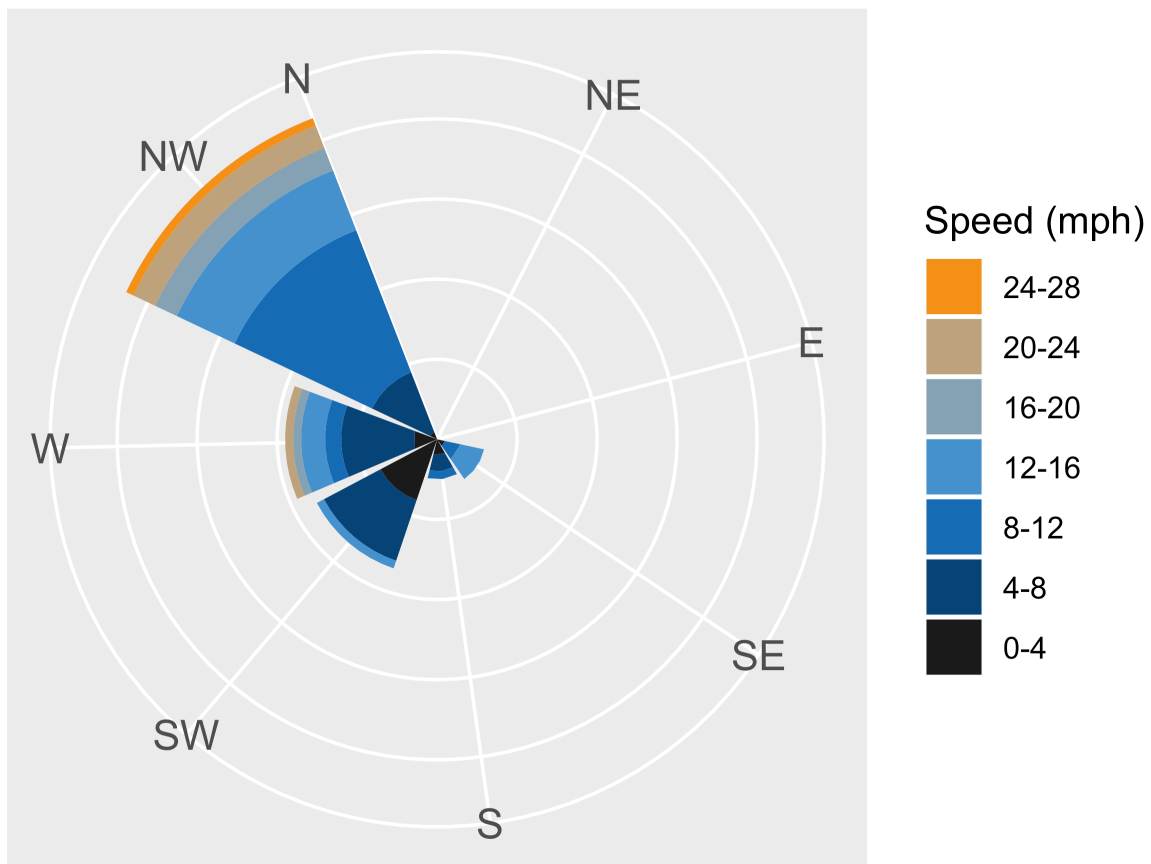


Figure 1. Summary of daily wind speed (color scale) and direction binned into sectors for morning, noon, and afternoon observations for this month. Larger bars means more wind from that direction.

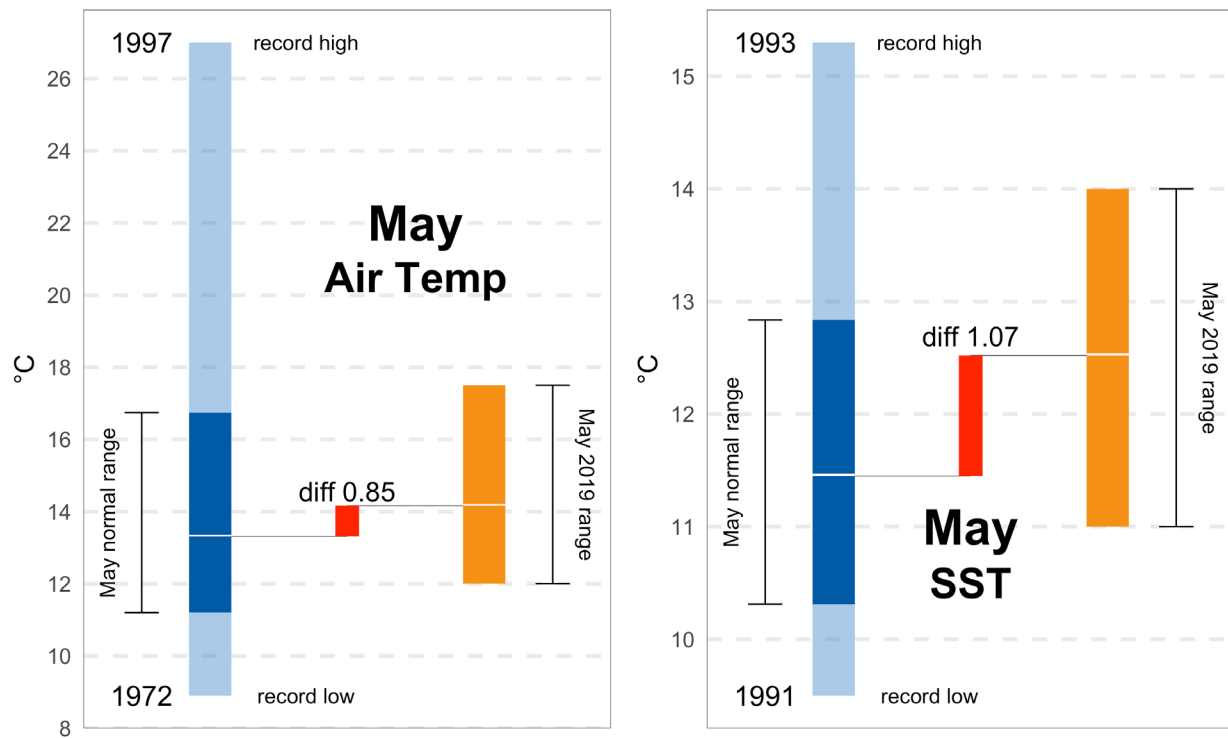


Figure 2. Noon air and sea surface temperature data summary. Light blue depicts the long-term (1971 – 2018) range of observations with years given for record highs and lows, dark blue shows the long-term “normal” range (average highs and lows). Orange depicts the range of current (2019) observations. Differences between the long-term and current means are shown in red if above normal, and blue if below normal.

Oiled & Entangled Wildlife

3 adult California Sea Lions were seen with monofilament embedded tightly around the neck, and a Common Murre was seen with a small patch of oil on its breast.

Breeding Birds

Storm-Petrels – Two standard 3-hour mist netting sessions were conducted this month. The first was at the Carp Shop on May 5th with 77 new and 14 recap ASSP. 17 birds were pit tagged and physiological samples were taken from 18 birds. The second session was on Lighthouse Hill on May 9th with 54 new and 7 recap ASSP, and 1 new LHSP. Approximately 30 pit tags were deployed and physiological samples were taken from 18 birds. Breed checks with the Ashy cam began on May 9th, and the first egg was found on May 24th.

Brandt’s Cormorant – Cormorants began settling in at followed sites early in the month, with numerous well-built nests noted by May 10th. The first eggs were seen from the Corm Blind on May 5th and from the Sea Lion Cove Blind on May 7th. A second wave of new birds appeared at both blinds on May 23rd, many closer to the Corm Blind than seen in the past. Sub-colony counts began on May 30th.

Pelagic Cormorant – A notable increase in attendance at followed sites was observed on May 10th, but there were still very few well-built nests by the end of the month.

Double-crested Cormorant – Numbers on Maintop slowly increased throughout the month of May. Nest counts appear to have leveled off at ~ 100 well-built nests.

Western Gull – The first eggs in H-plot west and C-plot were found on May 1st, and in K-plot on May 7th. The first chick of the season was found on May 28th, and in H-plot east, H-plot west, and C-plot on May 31st. No chicks were seen in K-plot. An all-island census was conducted on May 29th, resulting in a corrected population estimate of 14,205 birds.

California Gulls – Official 5-day breed checks began on May 1st, however, California gull numbers are again low this year. The first of only 2 well-built nests was spotted on West Marine Terrace using a scope from the Lighthouse. Over 100 gulls were counted loafing on East Marine Terrace on May 11th, half of which were immatures.

Common Murre – The first eggs were observed at Sea Lion Cove on May 10th, and in followed Upper Upper and Upper Shubrick plots on May 11th. Peak lay this season was several weeks later than last year but similar to the long-term median. Unseasonably large swells on May 21st washed out most of the murrees breeding on the western edge of Saddle Rock.

Pigeon Guillemot – Breed checks on Lighthouse Hill and at the PIGU Rubble Pile near Garbage Gulch began on May 2nd. The first eggs were found on May 12th.

Rhinoceros Auklet – Peak egg laying occurred roughly mid-month. Index plot counts were completed on May 29th.

Tufted Puffin – Early season puffin surveys began on May 24th.

Cassin's Auklet – It is shaping up to be a poor year for Cassin's auklets. Rather than finding brooding parents, numerous cold eggs were discovered when followed nest boxes came off skip on May 23rd. Despite the apparent dismal foraging conditions for Cassin's around the island this year, the first chick was found on May 23rd at Corm Blind site 396. Interestingly, many birds have switched mates and/or boxes this year, which has resulted in our lowest recovery rate of geolocator tags yet (only 7 out of the 30 deployed last summer). To date, we have seen lower attendance rates and greater incidence of egg neglect than in previous seasons, reinforcing the observation of poor conditions for Cassin's this year. Index plot counts were completed on May 29th.

Black Oystercatchers – A nest with 2 eggs was seen near The Ponds on May 13th.

Pinnipeds

Weekly counts have been postponed until June 1st. This was chosen to reduce workload for island biologists until the window of long-term peak numbers for all species, as a way to reduce

effort while still capturing high counts. The first California Sea Lion pups were observed at Sea Lion Cove on May 25nd.

Cetaceans

Standard Survey – Due to strong NW winds and heavy fog, only 8 one-hour standard whale watches were conducted this month from the Lighthouse using the Spotter App. Daily high counts from standard watches combined with incidental observations are summarized in Figure 3. In addition, Pacific White-sided Dolphins were seen on May 2nd and May 14th (50 and 125 individuals respectively), 200 Northern Right-whale Dolphins on May 5th, and Risso's Dolphins on May 5th and May 7th (2030 and 35 individuals respectively).

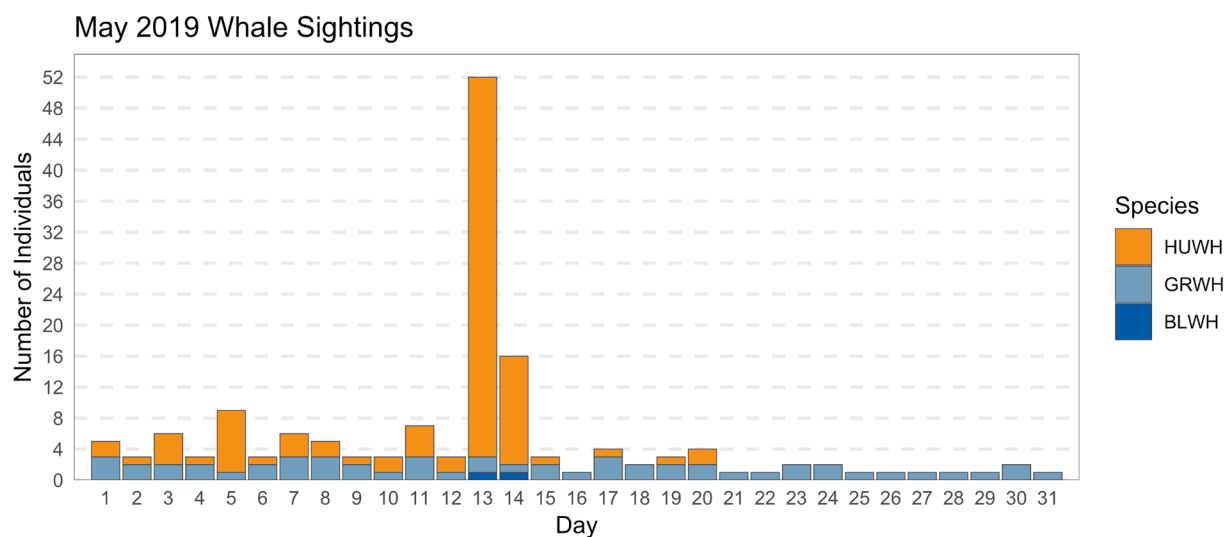


Figure 3. Daily high counts of Cetaceans from SEFI. HUWH = humpback whale, GRWH = gray whale, BNDO = bottlenose dolphin.

Sharks

No predation events this month.

Salamanders

Two standard surveys were conducted. There were 4 salamanders found on May 4th and 20 found on May 24th. The slight increase in individuals found later in the month reflects unseasonably wet soil conditions following a series of heavy rain events.

Owls

No burrowing owls were observed.

Crickets

No cricket surveys were conducted this month.

Bats

None were observed.

Mice

No mouse trapping sessions were conducted.

Inverts and Intertidal

Nothing to report.

Oceanic Events

A small water spout was seen from the Sea Lion Cove blind. It passed by the islets before heading out into Mirounga Bay. We suspect it passed near the Habitat Sculpture, as 4 windows were found blown out the following day.

Plants

Theresa found a potential *Juncus sp.* on Lighthouse Hill.

Violations

No violations were observed this month.

Maintenance

Island biologist 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 sections of the wooden railing on Lighthouse Hill need repair.
- Several separations have been seen on the East Landing derrick slewing rope, possibly from jogging the slew.
- Substantial corrosion of the wedge-socket on the East Landing block.
- 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 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.
- Very small coolant leak in Speedwagon radiator fins.

Solar/Electric

PV System

Distilled water used:	11.5 gallons
Distilled water reserves:	45 gallons

Generator run times

Kohler 15ROZ (Buffy):	1.8 hours	(1736.0 on meter)
Kohler 30REOZJC (Speedwagon):	5.6 hours	(610.9 on meter)
Kohler 40REOZK (Zeke):	7.6 hours	(299.3 on meter)
Kohler 15ROY61 (Peevey):	1.8 hours	(3882.5 on meter)
Webasto:	0 hours	

Power use

Facilities power use: Start = 76,534; End = 77,697; for total of 1163 kWh

Fuel Reserves

Diesel used:	43 gallons
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Diesel drums: 15.3 @55gal:	841 gallons
Kohler 15ROZ (Buffy) Tank:	Full
Kohler 30REOZJC (Speedwagon) Tank:	7/8
Kohler 40REOZK (Zeke) Tank:	7/8
Kohler 15ROY61 (Peevey) Tank:	Full
Webasto Tank:	Full
Surplus gasoline for boat motors:	9 gallons
Safeboat tank:	Full
Zodiac tank:	Full

Water Reserves

Water used this month: Start = 256,908; End = 259,450; for a total of 2,542 gallons	
Cistern:	8.00' or ~111,430 gallons
Gravity Tank:	empty
Settling Tank:	empty

Sightseeing Boats

The Salty Lady was seen on 3 occasions with an average of ~ 35 POB.

Non-breeding birds

Pacific Loon, Eared Grebe, Black-footed Albatross, Pink-footed Shearwater, Sooty Shearwater, Blue-footed Booby, Brown Booby, Brown Pelican, **Great Blue Heron**, Canada Goose, Surf Scoter, Peregrine Falcon, Wandering Tattler, Black Turnstone, Red-necked Phalarope, Bonaparte's Gull, Mew Gull, **Caspian Tern**, **Ancient Murrelet (pair with chick! on June 1)**, Eurasian Collared-dove, Barn Owl, **Anna's Hummingbird**, **Western Wood-pewee**, *Empidonax sp.*, **Hutton's Vireo**, **Warbling Vireo**, **Red-eyed Vireo**, **Tree Swallow**, **Barn Swallow**, Ruby-crowned Kinglet, Hermit Thrush, American Robin, **Cedar Waxwing**, **Orange-crowned Warbler**, **Yellow Warbler**, Audubon's Warbler, Myrtle Warbler, **Black-throated Gray Warbler**, **Townsend's Warbler**, **Hermit Warbler**, **McGillivray's Warbler**, Common Yellowthroat, Wilson's Warbler, **Western Tanager**, Spotted Towhee, **Chipping Sparrow**, Golden-crowned Sparrow, Oregon Junco, **Rose-breasted Grosbeak**, **Indigo Bunting**, Brown-headed Cowbird.