

## Farallon Islands Monthly Report

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

April 2020

Amanda Spears, Mike Johns, Garrett Duncan  
[aspears@pointblue.org](mailto:aspears@pointblue.org)

**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](http://www.pointblue.org).

---

#### Island Visitors

**Point Blue crew:** Garrett Duncan, Alix Gibson, Mike Johns, Paul Ruiz-Lopez, and Amanda Spears.

April 29<sup>th</sup>: “**John A.B. Dillard Jr.**” (skipper Kixon Meyer) brought out necessary food supplies and equipment, and departed with trash, recycling, and compost. No people toured the island.

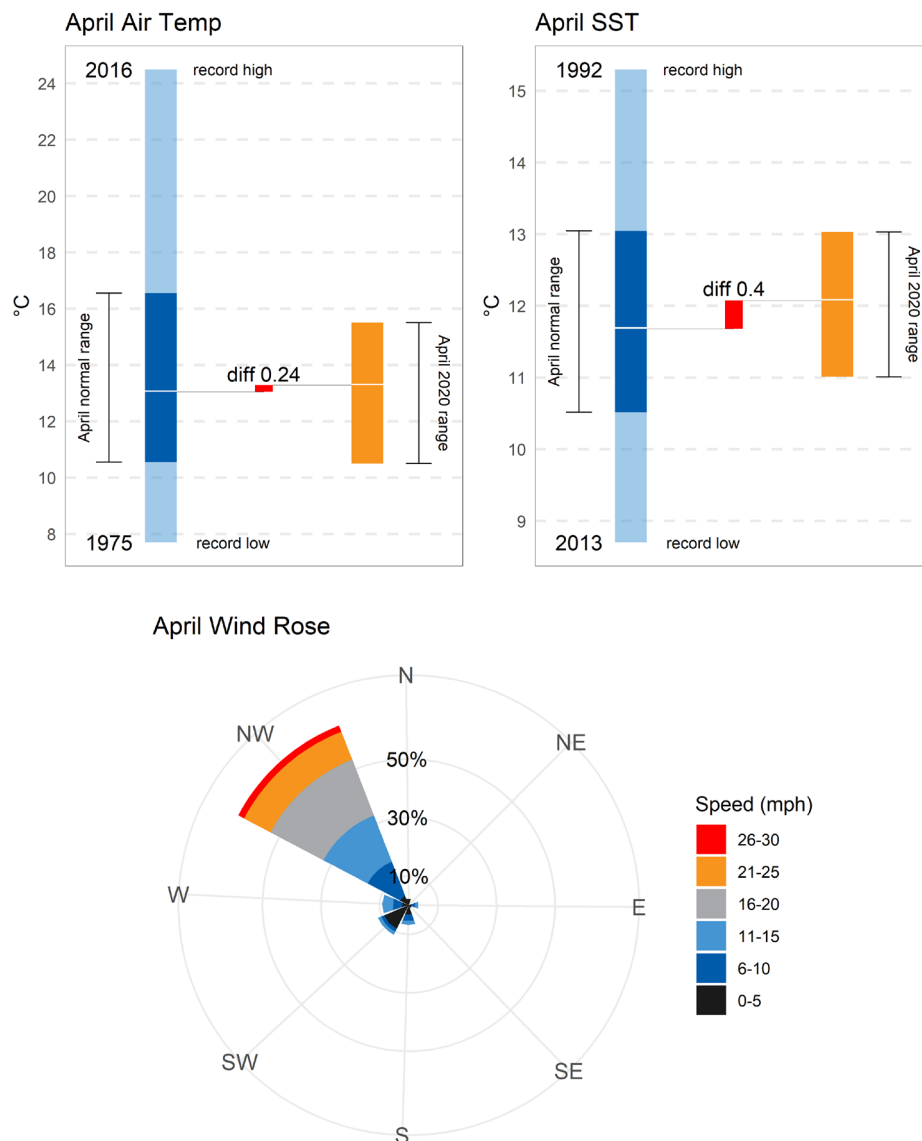
**COVID-19:** In response to growing concerns over impacts of this global pandemic, certain precautionary measures were taken this month to minimize the risk of COVID-19 infecting island personnel: three winter crew members remained on the island and summer intern arrival was postponed; the frequency 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

None.

## Weather/Ocean

Monthly weather is summarized in Figure 1. Strong NW winds dominated this month, accounting for over 50% of wind activity, with occasional gusts up to 30 knots on some days. The island received 0.55 inches of rain in April. The range of midday air temperatures fell within the long-term normal range for this month, with an average of 13.28 °C. This was 0.24 °C higher than the long-term average for April. Sea surface temperature (SST) readings from the island also fell within the long-term range for this month, with an average of 12.08 °C. This was 0.4 °C higher than the long-term average SST for April.



**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 April. Orange depicts the range of current (2020) 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

No oiled wildlife was observed this month.

A single western gull was observed with fishing line tangled tight around its right leg. Six *Zalophus* were observed with packing straps or an unknown material either embedded in or tight around their neck.

## Breeding Birds

**Storm-Petrels** – Adults attended the island in high numbers this month, as evidenced by frequent incidental observations at night and high capture rates during netting sessions. Two standard 3-hour mist netting sessions were conducted. The first complete session at the Carp Shop site occurred on April 18<sup>th</sup>, and resulted in a total of 105 ashy storm-petrels (99 new and 6 recaptures) and 1 new Leach's storm-petrel. A second complete netting session was conducted at the Lighthouse Hill site on April 19<sup>th</sup>, and resulted in a total of 102 ashy storm-petrels (89 new and 13 recaptures).

**Brandt's Cormorant** – Regular breed checks and counts began at the Corm Blind and Sea Lion Cove sub-colonies on April 5<sup>th</sup>. Though numbers at both colonies appeared low as compared to previous years, many birds began nest building soon after regular attendance began. The first well-built nests were observed by April 15<sup>th</sup> at both sub-colony sites, and the first egg was observed at Corm Flat on April 18<sup>th</sup>. By the end of the month, most followed sites in the Corm Blind sub-colonies had at least one egg, and many with two or three. Breeding activity at the Sea Lion Cove sub-colonies was roughly a week behind those at Corm Blind, with the first eggs observed on April 30<sup>th</sup>. Notable are the high numbers of Brandt's cormorants nesting at Shubrick Cove this year.

**Pelagic Cormorant** – Regular breed checks began on April 10<sup>th</sup>. Numbers appear to be high and nest building seems diligent, with several well-built nest observed on the first breed check.

**Double-crested Cormorant** – Nesting activity remains evident atop Maintop, with at least 35 well-built nests and 50 adults present. Regular 5-day colony counts and breed checks began on April 27<sup>th</sup>.

**Western Gull** – Breeding activities such as courtship, copulation, territorial defense intensified as birds began nesting this month. Regular breed checks began in all study plots on April 22<sup>nd</sup>, and the first eggs of the season were discovered on April 26<sup>th</sup>. By April 30<sup>th</sup>, several sites in C-plot and H-plot East had one to three eggs.

**California Gulls** – Several small groups of birds were observed loafing around the Marine Terrace, however official breed checks did not begin this month.

**Common Murre** – Resighting efforts for banded birds were conducted daily at Upper Shubrick Point and Upper Upper throughout the month and attendance checks started on April 16<sup>th</sup>. Though copulation events seemed low, egg laying began early this year, with the first eggs

observed in the Upper Shubrick study plot on April 20<sup>th</sup>. Many of these early breeding attempts, however, resulted in failure as the eggs were soon lost due to territorial disputes and predation. By April 30<sup>th</sup>, several sites at Sea Lion Cove and Corm Blind had eggs, but no eggs had been observed in the Upper Upper study plot.

**Pigeon Guillemot** – Daily raft counts continued through the first half of the month, then abruptly ended when strong NW winds arrived and persisted through the end of the month. These winds may have resulted in a miss of the peak raft count. The high count was on April 10<sup>th</sup> with 2,812 individuals. Band resighting began on April 9<sup>th</sup>, and productivity box and crevice checks began on April 27<sup>th</sup>. Amazingly, a complete clutch of two eggs was discovered on the first breed check in a box at Garbage Gulch, breaking the all-time earliest egg lay date for this species by three days.

**Rhinoceros Auklet** – Productivity box checks began on April 1<sup>st</sup> and burrow camera checks began on April 12<sup>th</sup>. Birds were observed attending nest boxes on April 6<sup>th</sup> and the first eggs were observed in nest boxes on April 11<sup>th</sup>. The first eggs on the cam checks were found on April 17<sup>th</sup>. Eleven geolocators were retrieved and four were deployed this month. By April 30<sup>th</sup>, 25 nest boxes and 24 camera sites had a bird over egg.

**Tufted Puffin** – A substantial increase in individuals attending sites on Lighthouse Hill, Sugar Loaf, and Maintop was noted on April 10<sup>th</sup>.

**Cassin's Auklet** – Breeding activity remains remarkably high this month, with the first chicks observed in a PRBO box on April 11<sup>th</sup>. Notably for the birds in the known-age study, a mass hatching event occurred on April 18<sup>th</sup>. Fifty-five boxes in the PRBO study (including the Habitat Sculpture) and 346 boxes of the Known-Age study had eggs or chicks, 142 of which were attended by known-age birds. Twenty-five geolocators were recovered this month. Since over half the pairs in the PRBO study had chicks, diet sampling efforts began this month, with the first samples collected on April 28<sup>th</sup>. It appears a mix of mysids, larval fish, and krill comprised the early season diet.

**Black Oystercatchers** – Pairs were seen in typical nesting areas around the island.

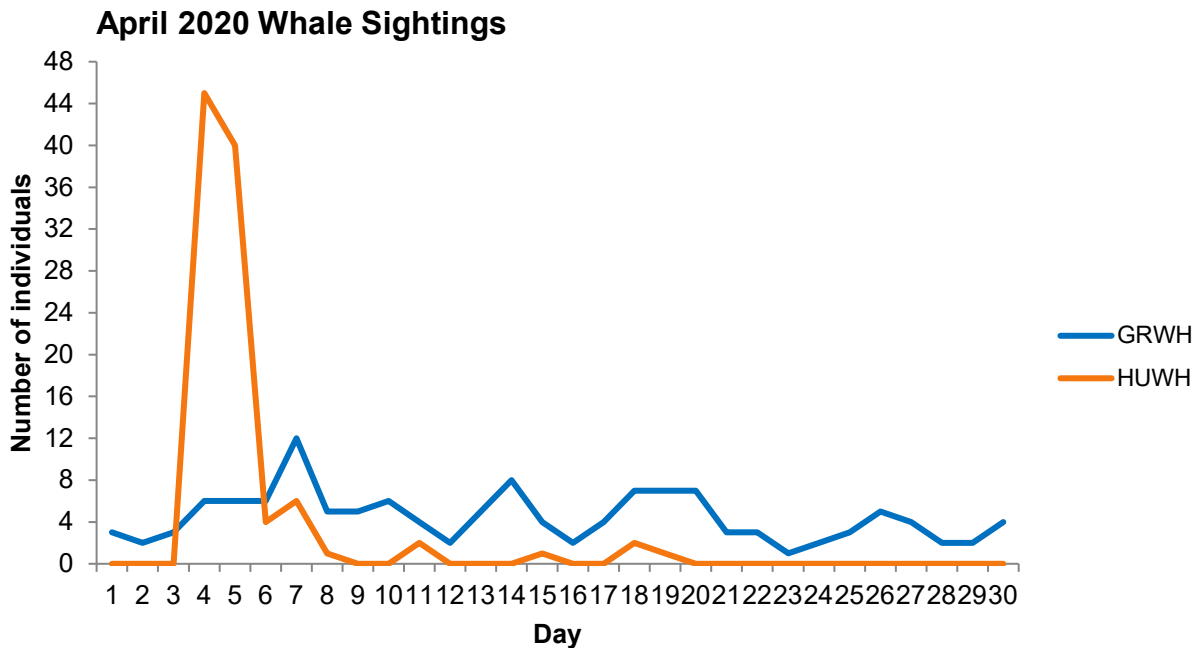
## Pinnipeds

Weekly counts have been postponed until May 15<sup>th</sup>. 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.

## Cetaceans

**Standard Survey** – Due to strong NW winds in the latter half of the month, only 9 one-hour standard whale watches were conducted this month from the Lighthouse using the Whale Alert App. Daily high counts from standard watches combined with incidental observations are summarized in Figure 2. Several pods of Risso's dolphins were present off and on through the first two weeks, including a pod of 350 and 300 on April 7<sup>th</sup> and April 14<sup>th</sup>, respectively.

Additionally, a mixed pod of 50 Pacific white-sided and 350 Risso's dolphins was seen on April 20<sup>th</sup>. On April 4<sup>th</sup> 45 humpback whales were seen around the island, including 15 humpback whales attended a major feeding event approximately 3 miles north of the island, the food source likely krill. Gray whales continued to be seen on a daily basis, though we saw a slight decrease in the number of individuals as migration waned mid-month.



**Figure 2.** Daily high counts of whales from SEFI. HUWH = humpback whale, GRWH = gray whale.

## Sharks

No predation events were observed this month, though one adult female *Zalophus* was observed on Mussel Flat with a relatively fresh white shark bite on its left side.

## Salamanders

Two standard surveys were conducted this month. On April 4<sup>th</sup> a total of 21 individuals (14 large, 2 small, and 5 tiny) were found. On April 14<sup>th</sup> a total of 18 individuals (14 large, 2 small, and 2 tiny) were found.

## Owls

No burrowing owls were observed this month. A single owl pellet containing an ashy storm-petrel band was discovered at the PRBO catacombs on April 1<sup>st</sup>.

## Crickets

A quarterly cricket survey at Rabbit Cave, Corm Blind, North Landing, and Gap pocket caves was completed on April 17<sup>th</sup>.

## Bats

A single hoary bat was observed flying around the PRBO house at dusk on April 9<sup>th</sup>.

## Mice

No mice activity noted this month.

## Inverts and Intertidal

A nice push of painted lady butterflies occurred during the second week, peaking at a conservative estimate of 100 individuals on April 10<sup>th</sup>.

## Oceanic Events

The northwest spring winds returned this month, reaching gusts of up to 30 knots.

## Plants

Drier conditions and a sudden increase in the northwest winds this month has accelerated the drying out of the *Lasthenia maritima* and most grasses on the north side of the island.

## Violations

April saw a dramatic increase in the number of violations during the first half of the month, particularly by small recreational boats fishing within the Marine Protected Areas surrounding the island. A combination of good weather, calm seas, and Covid-19 activity on the mainland is assumed to explain this phenomenon. Specific violators are listed below:

1. CF1811RZ, recreational powerboat fishing in Mirounga Bay on April 9<sup>th</sup>.
2. A small recreational boat went between the island and Saddle Rock, flushing 200-300 murres on April 14<sup>th</sup>.
3. WN9524SK, small recreational fishing boat actively fishing within 300m of Sugar Loaf on April 15<sup>th</sup>.
4. Three recreational boats were fishing within MPA in several places around the island on April 18<sup>th</sup>, two of which were hailed successfully on channel 16 and left.
5. CF0970ZN and CF1811RZ, small recreational boats fishing within MPA on April 19<sup>th</sup>.

## Maintenance

Island biologists Duncan, Johns, and Spears conducted routine weekly maintenance checks on the PV system and generators. Monthly changes of water filters and crane greasing were conducted. A water quality test conducted at the end of the month came back negative for both coliforms and *E. coli*. On April 7<sup>th</sup>, USCG Cutter "George Cobb" brought out and successfully installed new mooring balls and anchors for North and East Landings, and removed the old mooring ball and anchor at East Landing. Generator "Speedwagon" ran for 3 hours and pumped 2 feet of water into the cistern and emptied out the rest of the settling tank, thus concluding water collection for the season on April 9<sup>th</sup>. An island-wide MSDS update was

completed on April 22<sup>nd</sup>. A new “seagull” filter was installed under the kitchen sink on April 29<sup>th</sup>. The prop on the 9.9h Yamaha was replaced also on April 29<sup>th</sup>. Finally, island biologist Duncan replaced the Coast Guard house internet phone converter, the PRBO house dairy fridge’s power cord, the PV controller’s Ethernet switch, and installed a new voltage regulator for the Ethernet switch on April 29<sup>th</sup>.

## Maintenance Needs

- The Peevey and Buffy generators have been decommissioned and the island is in need of a new PV backup generator.
- 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.
- Many sections of the trail and wooden railing on Lighthouse Hill need maintenance.
- 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 gutters and flashing on both houses is degrading and will need to be improved or replaced.
- The Webasto unit is not functioning properly and needs maintenance.
- Both communications dishes at the lighthouse need to be replaced (replacements received).
- Aluminum railings at East Landing and lighthouse need repair.
- The PRBO shower drain clogs frequently and may need new plumbing.
- The gray water is looking especially dark these days, may be something wrong with the filtration system or the holding tank needs to be flushed/cleared.

## Solar/Electric

### PV System

Distilled water used:	0 gallons
Distilled water reserves:	83.5 gallons

### Generator run times

Kohler 15ROZ (Buffy):	0 hours	(1830.5 on meter)
Kohler 30REOZJC (Speedwagon):	9.1 hours	(656.7 on meter)
Kohler 40REOZK (Zeke):	6.2 hours	(460.8 on meter)
Kohler 15ROY61 (Peevey):	0 hours	(3954.2 on meter)
Webasto:	0 hours	

### Power use

Facilities power use: Start = 83,827; End = 84,383; for total of 556 kWh

### Fuel Reserves

Diesel used:	12.9 gallons
Diesel drums: 10.49 @55gal:	577 gallons
Kohler 15ROZ (Buffy) Tank:	Full
Kohler 30REOZJC (Speedwagon) Tank:	Full
Kohler 40REOZK (Zeke) Tank:	Full
Kohler 15ROY61 (Peevey) Tank:	½
Webasto Tank:	Full
Surplus gasoline for boat motors:	5 gallons
Gasoline for portable generator:	25 gallons
6 gallon boat tank:	½
3 gallon boat tank:	Full

### Water Reserves

Water used this month: Start = 285,158; End = 287,124; for a total of 1,366 gallons	
Cistern:	7'3" or ~98,300 gallons
Gravity Tank:	empty
Settling Tank:	empty

## Sightseeing Boats

No sightseeing boats were seen around the island.

## Non-breeding birds

Pacific Loon, Eared Grebe, Northern Fulmar, **Pink-footed Shearwater**, Sooty Shearwater, Masked Booby, Brown Booby, Northern Gannet, Brown Pelican, Canada Goose, **Northern Shoveler**, Surf Scoter, Peregrine Falcon, Wandering Tattler, Whimbrel, Ruddy Turnstone, Black Turnstone, **Long-billed Dowitcher**, **Wilson's Snipe**, **Red-necked Phalarope**, Herring Gull, Thayer's Gull, Glaucous-winged Gull, Black-legged Kittiwake, **BLACK-TAILED GULL**, Ancient Murrelet, Eurasian Collared-Dove, Northern Saw-whet Owl, **Rufous Hummingbird**, Northern Flicker, **Hammond's Flycatcher**, **"Western" Flycatcher**, Say's Phoebe, **Violet-green Swallow**, **Barn Swallow**, Red-breasted Nuthatch, Rock Wren, **House Wren**, Golden-crowned Kinglet, Ruby-crowned Kinglet, **Blue-gray Gnatcatcher**, Hermit Thrush, American Robin, **Varied Thrush**, **American Pipit**, Orange-crowned Warbler, **Nashville Warbler**, "Audubon's" Warbler, "Myrtle" Warbler, Black-throated Gray Warbler, Townsend's Warbler, **Common Yellowthroat**, **Wilson's Warbler**, **Chipping Sparrow**, "Sooty" Fox Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, **Savannah Sparrow**, **Lincoln's Sparrow**, "Oregon" Junco, **"Slate-colored" Junco**, **Red-winged Blackbird**, **Brewer's Blackbird**, **Brown-headed Cowbird**, **Hooded Oriole**, **Purple Finch**, **House Finch**, **Pine Siskin**, **Lesser Goldfinch**.