

Farallon Islands Monthly Report

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

May 2020

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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: Mario Balitbit, Garrett Duncan, Sean Gee, Alix Gibson, Mike Johns, Theresa Rizza, Paul Ruiz-Lopez, and Amanda Spears.

May 17th: **“French Kiss”** (skipper Harmon Shragge) brought out Mario Balitbit, Sean Gee, and Theresa Rizza. Departed with Garrett Duncan, Alix Gibson, and Paul Ruiz-Lopez.

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 by newly arriving summer interns; 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.

Weather/Ocean

Monthly weather is summarized in Figure 1. Strong NW winds dominated this month, accounting for roughly 50% of wind activity, with occasional sustained winds of up to 30 knots. The island received 0.64 inches of rain in May. The range of midday air temperatures fell above the long-term normal range for this month, with an average of 14.6 °C. This was 1.27 °C higher than the long-term average for May. The island received an unusually late rain event on May 20th, accumulating 0.12 in of rain just before a week-long period of strong northwesterly winds. Sea surface temperature (SST) readings from the island also fell above the long-term range for this month, but with an average that matched the long-term average for May of 11.5 °C.

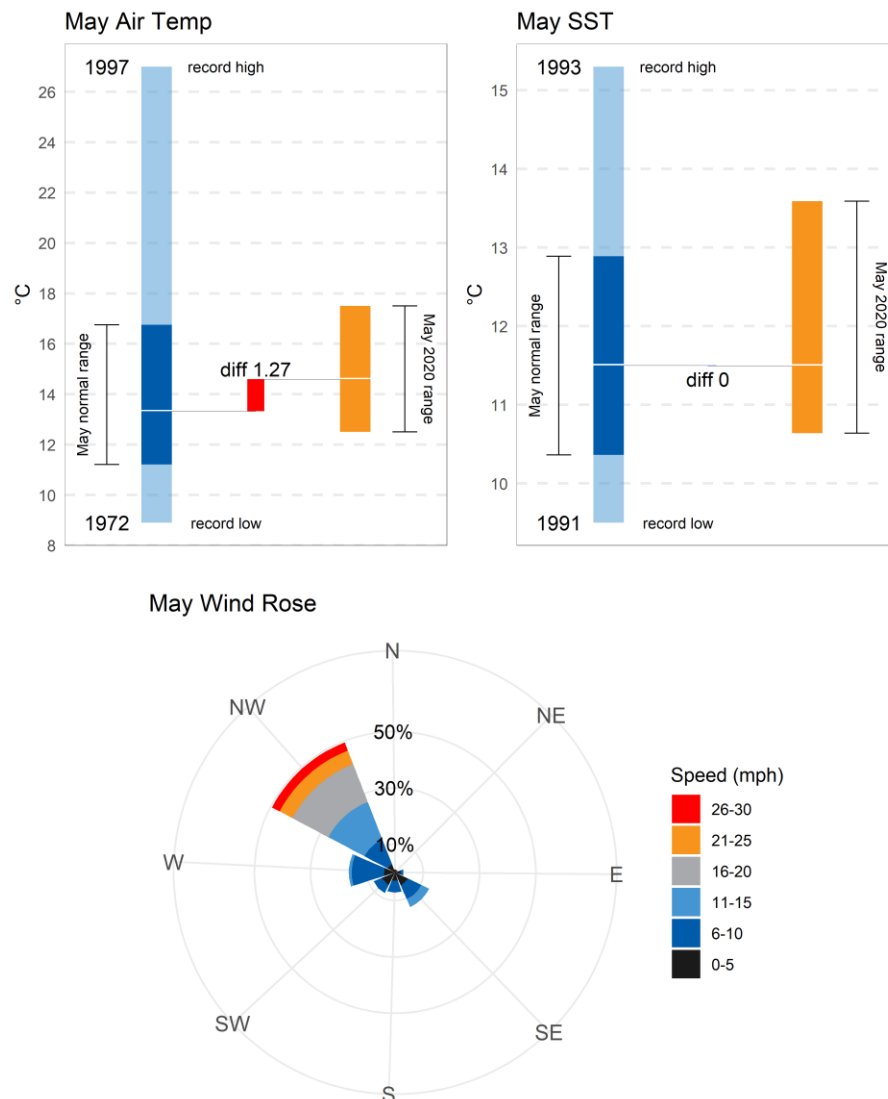


Figure 1. Noon air and sea surface temperature data summary. Light blue depicts the long-term (1971 – 2019) range of observations with years given for record highs and lows; dark blue shows the long-term range of averages for May. Orange depicts the range of current (2020) observations. Differences between 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

- An adult female and sub-adult male *Zalophus* were seen with unknown material embedded tightly around the neck.
- One sub-adult male *Zalophus* was seen with monofilament embedded tightly around the neck.
- A sub-adult male *Eumetopias* was seen with monofilament embedded tightly around the neck.

One adult Western Gull was seen from the Sea Lion Cove blind with 100 percent body coverage of an unknown oil.

Breeding Birds

Storm-petrels – One standard 3-hour mist netting session was conducted this month at the Carp Shop on May 19th, and resulted in a total of 94 ashy storm-petrels (87 new and 7 recaptures). During this session a LEAST STORM-PETREL was captured and measured, the second record of this species for the island. Photos were taken and the individual was released unbanded.



Breed checks with the ashy camera began on May 19th, with the first eggs discovered on the same day. A single Leach's storm-petrel was observed incubating an egg at a followed breeding site on May 29th.

Social attraction efforts began at the Ashy Castle on May 25th. Playbacks occurred throughout the night during a 2-week window around the new moon.

Brandt's Cormorant – Several nests with eggs failed mid-month at the Corm Blind sub-colonies, suspected due to an unusual late spring rain event. On May 20th, the first naked chicks were observed at the Corm Blind colony, followed by the Sea Lion Cove colony on May 25th.

The all-island census was conducted on May 30th, this year experimenting with photographing the colonies and counting using ImageJ. After applying a correction factor to account for the lack of a boat survey, 4,829 well-built nests were counted, resulting in a population estimate of 9,658 breeding adults this year.

Pelagic Cormorant – The first naked chicks of the season were seen at Tower Point and Little Lighthouse Hill on May 31st. Nest attendance remains high as many pairs continue to incubate full clutches of 3-5 eggs and begin to brood naked chicks. The annual all-island census was conducted on May 30th, for an adjusted population estimate of 292 breeding adults

Double-crested Cormorant – The first large chicks were seen on Maintop during regular breed checks on May 25th. Well-built nests remain at a count of 36 for the month of May. This is considerably lower than what has been observed in previous years.

Western Gull – The first eggs in H-plot west were found on May 1st, and in K-plot on May 4th. The first chicks of the season were observed at Russia House on May 21st, and in H-plot and C-plot on May 27th. No chicks were seen in K-plot. Index plots began on May 26th and were completed on May 29th. One plot on the west Marine Terrace was not counted to minimize disturbance of the Sewer Gulch Brandt's cormorant colony during the peak incubation and chick-rearing periods.

California Gulls – Official five-day breed checks began on May 1st. By the 21st it was apparent that a small, but stable breeding population of 14 pairs was establishing on West Marine Terrace. This represents an increase relative to the last few seasons, but is still far below the peak CAGU numbers from the early 2010's. The first eggs were seen on May 29th.

Common Murre – The first egg at the Upper Upper study plot was seen on May 4th, and the first chick hatched in the Upper Shubrick study plot on May 19th. Index plot photos began on May 26th. Incidental observations of feedings suggest the bulk of the early chick diet consists of juvenile rockfish and anchovy.

Sean Gee returned this season to continue his master's project on adult Common Murre foraging behavior during the incubation and chick rearing periods. On May 17th we began deployment of GPS tags and TDR (temperature and depth recorders) on adults captured with a noose pole from Sea Lion Cove and Upper Shubrick. A total of 13 GPS and 7 TDR tags were deployed. As of May 31st, 12 murres were recaptured and relieved of their tags. There were no eggs lost during the deployment or retrieval of tags, and all birds continued to incubate after released. It was revealed one murre was recorded to have dove to a depth of 105 meters!

Pigeon Guillemot – The first egg in the Habitat Sculpture was discovered on May 11th, just before the island-wide peak lay on May 12th. The first chicks were discovered at Garbage Gulch on May 27th. Resighting efforts confirmed several geolocator tagged birds attending followed breed sites. By May 31st, 12 geolocators were recovered; many resighted birds have proven difficult to recapture this season. Preliminary results from this work show a directed migration

north to British Columbia and Southeast Alaska in late August to early September, returning to the Farallones in March.

Rhinoceros Auklet – The first chicks were found during our regular nest box breed check on May 26th, followed by the first chicks in natural sites using a burrow camera on May 27th. Six geolocators were retrieved this month, for a running total of 14 for this year.

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

Cassin's Auklet – Productivity remained exceptionally high this month as chicks continue to grow and fledge. The first mostly-feathered chicks were banded in the PRBO study on May 11th, followed soon by the first mass banding of chicks in the Known-age study on May 13th. By May 23rd, several chicks were assumed to have successfully fledged, and our first double-brooded pair was discovered in a PRBO study box on May 31st. Forty-nine diet samples were collected this month that appear to be mostly krill. Index plots began on May 26th and were completed on May 29th, two plots were not counted due to the presence of cormorants and other breeding birds. These plots will be completed in August to minimize cormorant disturbance during the peak incubation and chick-rearing periods.

Black Oystercatchers – Signs of breeding, including territorial defense and birds in incubation posture, have been noted this month. Given the reduced effort directed towards monitoring this species, however, no active nests have been confirmed.

Pinnipeds

Weekly counts have been postponed until June 1st. This was chosen to reduce workload for island biologists while we are working with a reduced crew due to COVID. Counts will resume during the window of long-term peak numbers for all species (June – September), as a way to reduce effort while still capturing high counts.

California Sea Lion - On May 1st, a dead immature *Zalophus* was discovered on the steps to NL; it has appeared to have somehow wedged itself between the grating and cement and will have to be removed at a later time. Two scat samples were collected on May 3rd. The first pups were observed at Sea Lion Cove on May 25th.

Cetaceans

Standard Survey – Nine 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 2. In addition, 200 Risso's Dolphins were seen from the island on May 12th.

May 2020 Whale Sightings

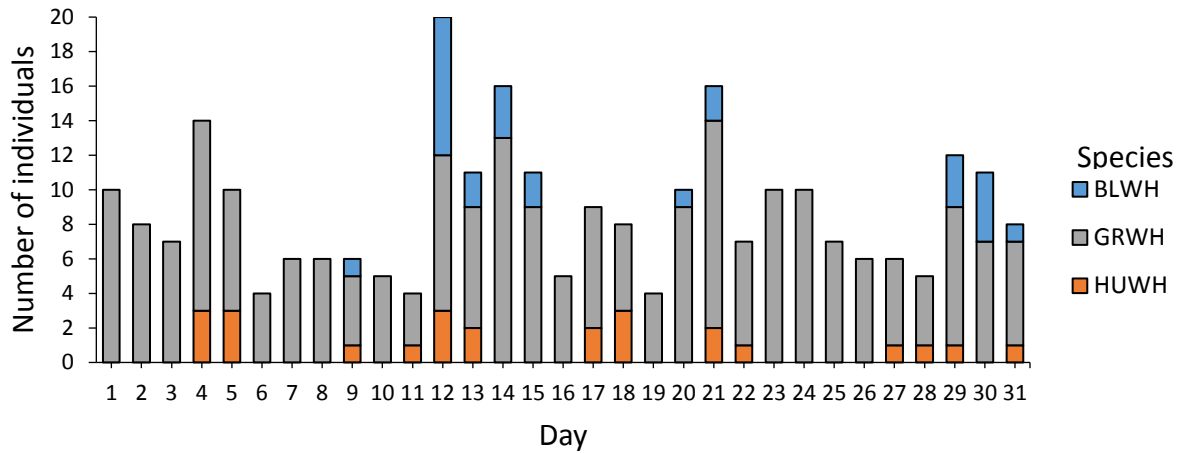


Figure 2. Daily high counts of Cetaceans from SEFI for May 2020. HUWH = humpback whale, GRWH = gray whale, BLWH = blue whale.

Sharks

No predation events this month.

Salamanders

The final standard survey of the 2019-2020 rain year was conducted on May 9th. No salamanders were found.

Owls

No burrowing owls were observed this month.

Crickets

No cricket surveys were conducted this month.

Bats

No bats were observed this month.

Mice

No mice activity noted this month.

Inverts and Intertidal

Nothing to report.

Oceanic Events

On May 1st, a noticeable change in the water color occurred, turning from blue to brown following strong northwesterly winds in late April.

Plants

Nothing to report.

Violations

Several recreational fishing boats were documented in violation of the State Marine Reserve and Special Closure restrictions this month. Specific violators are listed below:

1. CF4842PF, recreational powerboat actively fishing within the MPA on May 2nd.
2. CF9512JL, recreational boat approached the island within the Special Closure area on May 2nd.
3. Two small recreational boats were observed fishing within the MPA on May 10th.
4. A recreational fishing boat was observed fishing near Saddle Rock within the MPA on May 25th. They departed shortly after contact was made with the skippers.
5. Recreational vessel "Viking" approached the island near Saddle Rock within the Special Closure zone on May 28th. Contact was made with the skipper and from then on they maintained a proper distance from the island.

Additionally, there were two instances (May 13th and May 27th) where Coast Guard plane C27 made several low passes around the island, causing major disturbance to gulls, cormorants, murre, and guillemots.

Maintenance

Island biologists Spears and Johns conducted routine weekly maintenance checks on the PV system and generators. Monthly changes of water filters and crane greasing were conducted as usual. Additionally, Garrett Duncan mounted a new telecommunications dish at the lighthouse on May 1st. Island biologist Johns worked with Tim Pozar to align the new backup telecommunications dish, which now appears to have a signal level equivalent to the main link. Sections of the Lighthouse Hill trail railings were replaced on May 4th. Annual servicing of the Zeke and Speedwagon generators was performed by Garrett Duncan on May 5th. After troubleshooting the Webasto unit, Garrett discovered the battery was faulty; the battery was replaced and the Webasto is now functioning. Safety guidewires on the SAFEboat were replaced and NL outboard maintenance was performed on May 12th.

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 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 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.
- Aluminum railings at East Landing and lighthouse need repair.
- The PRBO shower drain clogs frequently and may need new plumbing.
- The load cell antenna on the hook end of the East Landing crane is heavily corroded and needs to be replaced.
- New main telecommunications dish needs to be mounted and aligned at the Lighthouse.
- PRBO house is having issues making calls, may need to replace internet phone adaptor.
- Powerhouse roof-access ladder mounts are badly corroded and need to be replaced.

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): | 0.3 hours | (657.0 on meter) |
| Kohler 40REOZK (Zeke): | 6.3 hours | (467.1 on meter) |
| Kohler 15ROY61 (Peevey): | 0 hours | (3954.2 on meter) |
| Webasto: | 0 hours | |

Power use

Facilities power use: Start = 84,383; End = 85,015; for total of 632 kWh

Fuel Reserves

| | |
|------------------------------------|-------------|
| Diesel used: | 5.3 gallons |
| Diesel drums: 15.3 @55gal: | 572 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: | 3 gallons |
| Gasoline for portable generator: | 20 gallons |
| 6 gallon boat tank: | Full |
| 3 gallon boat tank: | Full |

Water Reserves

Water used this month: Start = 287,124; End = 289,233; for a total of 2,109 gallons
Cistern: 7'2" or ~96,640 gallons

| | |
|----------------|-------|
| Gravity Tank: | empty |
| Settling Tank: | empty |

Sightseeing Boats

No sightseeing boats were seen around the island this month.

Non-breeding birds

Pacific Loon, **Common Loon**, Western Grebe, Northern Fulmar, Pink-footed Shearwater, Sooty Shearwater, **LEAST STORM-PETREL**, Brown Booby, Northern Gannet, Brown Pelican, **Cackling Goose**, Canada Goose, **Osprey**, Peregrine Falcon, Wandering Tattler, Whimbrel, Black Turnstone, Red-necked Phalarope, **Red Phalarope**, **Bonaparte's Gull**, Eurasian Collared-Dove, Western Wood-Pewee, Hammond's Flycatcher, **Red-eyed Vireo**, Barn Swallow, Varied Thrush, Cedar Waxwing, Orange-crowned Warbler, **Northern Parula**, Yellow Warbler, **Magnolia Warbler**, "Audubon's" Warbler, American Redstart, Common Yellowthroat, Wilson's Warbler, **Summer Tanager**, Western Tanager, Rose-breasted Grosbeak, Black-headed Grosbeak, **Indigo Bunting**, Brown-headed Cowbird, **House Sparrow**.