



Farallon Islands Monthly Report

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

July 2018

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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: Sophie Bennett, Gavan Borgias, Katie Douglas, Clare Flynn, Mike Johns, Cole Jower, Holly Pickett, Amy Miles, and Amanda Spears.

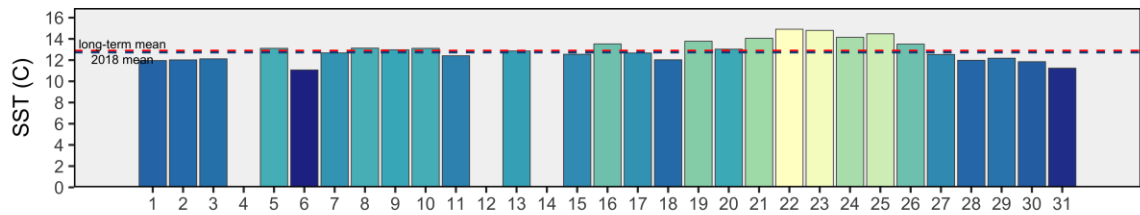
July 14: **“Starbuck”** (skipper John Wade) brought out Gavan Borgias, Clare Flynn, and Cole Jower. Departed with Amy Miles and Amanda Spears. 5 people toured the island.

July 28: **“Starbuck”** (skipper John Wade) brought out Amanda Spears and departed with Holly Pickett. Five people toured the island.

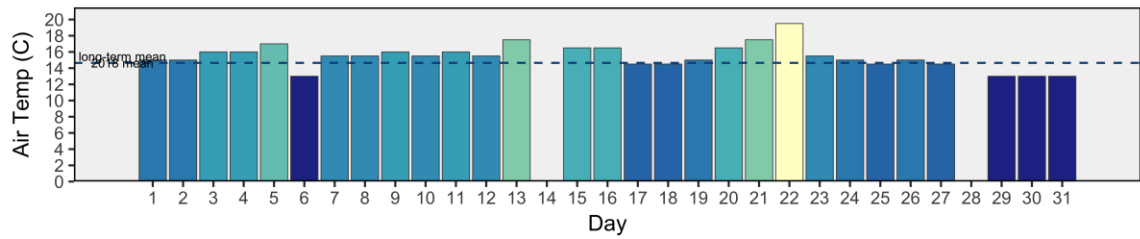
Weather/Ocean

Graphs depicting weather observations. Warm colors = higher values, cool colors = lower values, with monthly (red dashed line) and long-term mean (blue dashed line). Daily wind speed intensity (color scale) and direction binned into sectors (bars, 0-360). Larger bars = more wind from that direction.

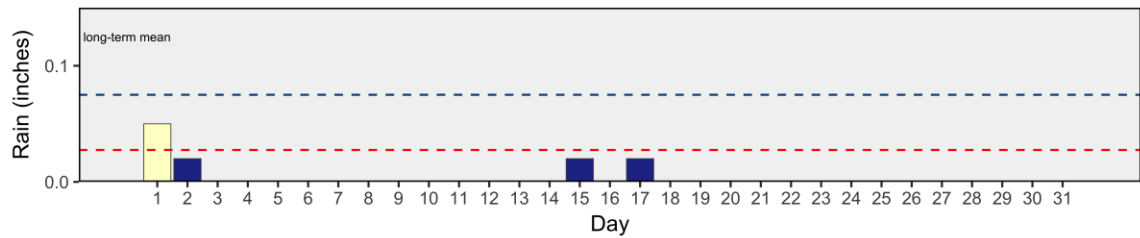
July 2018 Sea Surface Temp



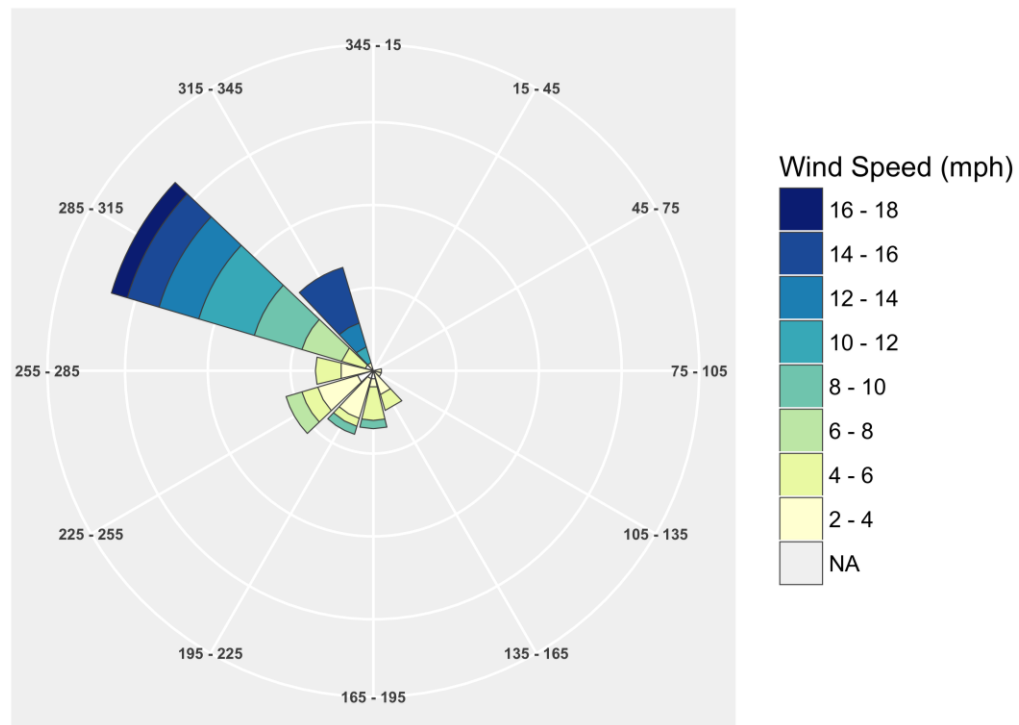
July 2018 Air Temp



July 2018 Rainfall Totals



July 2018 Wind Rose



Oiled & Entangled Wildlife

Several adult and immature California sea lions were seen with monofilament line embedded in their necks. No oiled wildlife was observed.

Breeding Birds

Storm-Petrels – Standard mist netting for the mark/recapture study was conducted twice in July. On July 3rd there were 87 new and 11 recapture ASSP, and 2 new LHSP at Lighthouse Hill. In addition to metal bands, 50 birds were fitted with PIT tags and Amy Miles collected 17 blood samples. On July 13th there were 56 new and 3 recapture ASSP caught at the Carp Shop. 18 blood blots and 16 plasma samples were taken and PIT tags were deployed. Netting effort at the Carp Shop finished an hour early due to a freak lightning storm that blew over around midnight. Regular burrow cam breed checks confirmed a Leach's Storm-petrel incubating an egg on Lighthouse Hill on July 8th.

Brandt's Cormorant – Some chicks were old enough to begin wandering from nests at Corm Blind and Sea Lion Cove sub colonies by the end of the month. Chick banding occurred over the course of two nights. Chicks were given the 2018 cohort combination yellow over metal on the left leg (yellow plastic field readable band and numeric metal band). The first round happened on July 18th at Sea Lion Cove with 181 chicks banded, and the second round at the Corm Blind with 138 chicks banded.

Pelagic Cormorant – Although breeding activity has been very low for pelagic cormorants this year, a small number of pairs are succeeding to produce offspring. The first chicks were discovered on Orca Ridge on July 4th.

Double-crested Cormorant – Some chicks at the Maintop colony reached nearly adult size and were observed wandering away from nests by the end of the month. Well-built nest counts peaked at about 100.

Western Gull – Many chicks were at the mostly to fully-feathered stage by the end of July, and the first confirmed fledglings were seen on the water around the island on July 8th. In an effort to boost the sample of known-age gulls for future productivity checks, "saturation banding" where all chicks within followed study plots get banded was conducted over the course of 4 days. Chicks received the 2018 cohort combo of red over metal on the left leg (red plastic band over numeric metal band). A total of 71 chicks were banded in C-plot on July 7th, 72 in H-plot east on July 8th, 97 in H-plot west on July 11th, and 87 in K-plot on July 15th. We began resighting banded chicks on July 18th.

California Gulls – California gulls have effectively failed to breed again this year. No active nests were observed in July, and very few birds were seen around the island.

Common Murre – Diet watches ended on July 11th, when only 25 chicks remained in the Upper Shubrick productivity plot. Island staff finished counting index plot photos on July

18th, with over 70,000 individual birds clicked on. A mass fledging of chicks from around the island was noted by mid-month, with many father-chick pairs seen swimming out to sea. All chicks had either fledged or disappeared from Upper Shubrick study plot by July 19th, and from Upper Upper Corm Blind study plot by July 25th.

Pigeon Guillemot – The first chicks were banded at followed sites on Lighthouse Hill on July 11th. The first fledge was confirmed at Garbage Gulch on July 26th.

Rhinoceros Auklet – Standard netting sessions to collect diet samples concluded on July 20th. Rhinoceros auklet prey continued to consist of predominately northern anchovy, with a sudden increase in Pacific saury on the final night of netting.

Tufted Puffin – Late season breed checks began on July 27th. Initial numbers appear high.

Cassin's Auklet – Roughly a third of all the second brood attempts failed at the incubation stage, with cold eggs discovered when chicks were expected to have hatched. Still, some pairs managed to hatch and continue to provision small chicks, an indication that krill abundance is still in adequate supply around the island. A second round of time-depth recorders (TDR) were deployed on 8 individuals on July 17th. We managed to retrieve 5 on July 20th.

Black Oystercatchers – Several pairs around the island have been seen with small chicks, including Sea Lion Cove, The Ponds, and Habitat Sculpture. A fledgling was seen flying with a pair of adults on July 19th.

Pinnipeds

California Sea Lion – On average there were 3,036 (stdev \pm 1,165) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 4,335 individuals. The high count for pups was 434.

Steller Sea Lions – On average there were 209 (stdev \pm 14) individuals counted, a high count of 217. The high count for pups was 44.

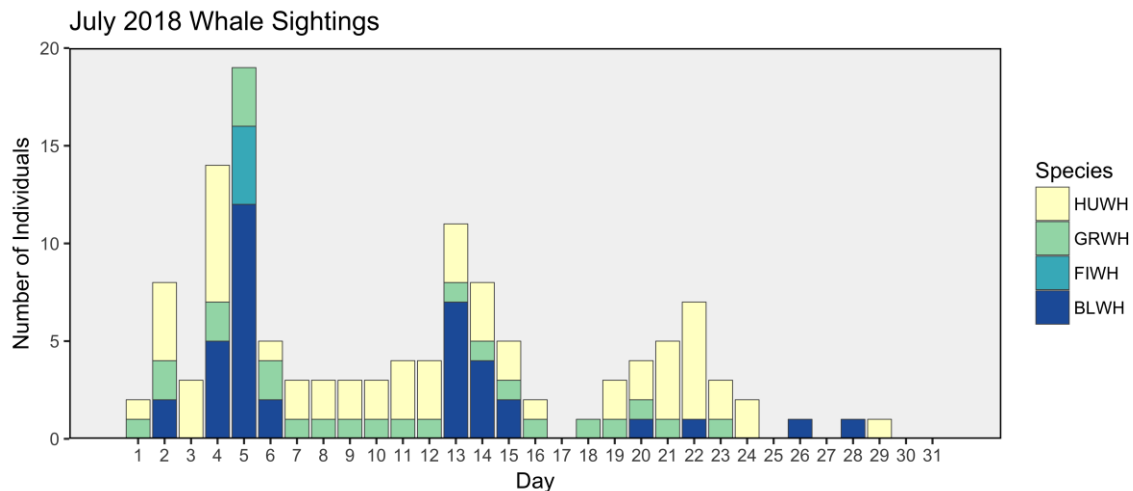
Northern Elephant Seal – Numbers of elephant seals remained low in July, with an average total count of 21 (stdev \pm 8) individuals counted. Several SA1 and SA2 males were seen mostly on Sand Flat and in Sewer Gulch.

Harbor Seal – Harbor seal numbers were highly variable, reflecting tide height and weather conditions during the weekly census. On average there were 57 (stdev \pm 13) individuals counted.

Northern Fur Seals – Fur seal numbers remained high throughout July, reflecting pupping activity at their main site on Indian Head. The mean count was 862 (stdev \pm 79) individuals, with a high of 945 on the 15th. The high count for pups was 393.

Cetaceans

Standard Survey – July weather was dominated by persistent NW wind and fog that hampered our ability to spot whales. Six one-hour standard whale watch was conducted this month from the Lighthouse using the Apple iPad and Spotter App. Daily high counts from standard watches and incidental observations are summarized below.



HUWH = humpback whale, GRWH = gray whale, FIWH = fin whale, BLWH = blue whale.

Sharks

An adult Sea Lion with a large fresh shark bite on its hind quarter was seen at Blowhole Peninsula on July 31st.

Salamanders

No salamander surveys were conducted this month.

Owls

No owls have been observed since early April.

Crickets

Three nights of standard cricket surveys at Rabbit Cave, and pocket caves at Corm Blind Hill, The Gap, and North Landing were carried out on July 12th, 14th, and 16th. The highest densities of crickets were observed in the middle chamber of Rabbit Cave.

Mice

Mice are slowly beginning to increase in numbers, as evidenced by an amplification of scratching sounds emanating from the walls and fresh droppings in our boots in the shoe room.

Inverts and Intertidal

Several female black widows were seen in the Power House and Murre Blind.

Plants

Cole Jower haphazardly pulled mustard (*Sisymbrium*), NZ Spinach (*Tetragonia*), cut-leaf plantain (*Plantago*), sow thistle (*Sonchus sp.*), and goosefoot (*Chenopodium*) around the helo pad, Powerhouse, Twitville, Lighthouse Hill, and both houses.

Violations

No violations to report.

Maintenance

Island biologists Johns and Warzybok conducted routine maintenance checks on the PV system and generators weekly. Monthly changes of water filters and outboard motor operation were also conducted as well as biweekly crane greasing. In addition, the pole guides for the NL platform were straightened and replaced, sections of the rail along the cart path totaling approximately 50' were replaced or repaired, the murre blind was cleaned out and winterized, and a leak in the pump house was repaired. The rubber gasket between a pressure gauge unit and the main water supply in the pump house was dislodged and leaking, possibly from someone bumping the pipe. The leak was found early and gasket reseated with minimal water loss. Mike also completed NL landing operations training with new crew members Sophie Bennett and Amanda Spears.

Maintenance Needs

- Repair liner in the Gravity tank
- Cistern has been losing water at a rate ~250 gallons per month. There appears to be a much more sizable leak when the cistern is above 8'6". A recent inspection of the cistern indicated serious structural decay that will need to be repaired in the future.
- Settling Tank appears to have a leak in it when water is above 5.1 feet.
- Many of the wooden railing on Lighthouse Hill needs repair.
- Corrosion of the cart path rail system appears to be accelerating and will need to be addressed soon, perhaps repaired with the old galvanized pipe when the water lines are replaced. The cart is falling off the tracks in several places now.

- Several separations have been seen on the East Landing derrick slewing rope, possibly from jogging the slew. Perhaps tightening the slewing rope will mitigate this issue slightly until replacement.
- Several inches of water accumulate in the pipe shop after a good rain. A new threshold is needed to seal the door.
- Several grease points on the crane are having difficulty taking grease.
- Broken section of pipe near Twittville needs to be properly repaired.

Solar/Electric

PV System

Distilled water reserves: 20 gallons

Generator run times

Kohler 15ROZ (Buffy): 0.7 hours

Kohler 30REOZJC (Speedwagon): 7.4 hours

Kohler 40REOZK (Zeke): 4.1 hours

Kohler 15ROY61 (Peevey): 0.8 hours

Webasto: 0 hours

Power Used this month: Start = 69,516; End = 70,282; for total of 766 kwh

Fuel Reserves

Diesel fuel used in April: 11 gallons

Drums: $3 \frac{1}{4} \times 55g = 206$ gallons

Kohler 15ROZ (Buffy) Tank: Full

Kohler 30REOZJC (Speedwagon) Tank: Full

Kohler 40REOZK (Zeke) Tank: Full

Kohler 15ROY61 (PV) Tank: Full

Webasto Tank: $\frac{2}{3}$ Full

Surplus gasoline for boat motors: 3 gallons

Safeboat tank: Full

Zodiac tank: Full

Water Reserves

Cistern: ~ 78,750 gallons (6'3")

Gravity Tank: empty

Settling Tank: empty

Water use at house meter was 2,555 gallons

Sightseeing Boats

The **Kitty Kat** was seen 5 times with an average of 30 POB, **Salty Lady** was seen 3 times with an average of 30 POB, **Huck Finn** was seen twice with 14 POB, **Hulicat** was seen once, **New Captain Pete** was seen once with 35 POB, and the **Sea Wolf** was seen once with 16 POB.

Non-breeding birds

Black-footed Albatross, Pink-footed Shearwater, Sooty Shearwater, Northern Fulmar, Brown Pelican, Canada Goose, Peregrine Falcon, **Sora**, Wandering Tattler, Whimbrel, Black Turnstone, **Western Sandpiper**, Red-necked Phalarope, **Long-tailed Jaeger**, **Heermann's Gull**, Caspian Tern, Eurasian Collared-dove, Rock Pigeon, **Barn Owl**, **House Wren**, Northern Mockingbird, **Northern Parula**, Chestnut-sided Warbler