

Farallon Islands Monthly Report

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

February 2020

Garrett Duncan and Pete Warzybok
gduncan@pointblue.org and pwarzybok@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.

Island Residents

Point Blue crew: Danielle Butts, Abigail Crowder, Garrett Duncan, Alix Gibson, Sarah Jennings, Grace Kumaishi, Liz Max, Amy Miles, Paul Ruiz-Lopez, and Pete Warzybok.

Island Visitors

February 1st: “Hokahey” (skipper Jan Passion) brought out Abigail Crowder, Garrett Duncan, and Elizabeth Max and departed with Danielle Butts, Grace Kumaishi, and Pete Warzybok. 4 people toured the island.

February 5th: “So Good” (skipper Harmon Shragge and Don Bauer) brought out 50 gallons of gasoline and 2 buckets of goodies.

February 15th: “Steadfast” (skipper Kixon Meyer) brought out Danielle Butts, Sarah Jennings, and Amy Miles and departed with Paul Ruiz-Lopez. 2 people toured the island.

February 19th: “Pacific Pearl” (skipper Andy Guiliano) brought out 2 Industrial Electric generator mechanics, David Gill of Bonny Doon Environmental, and Fernando Vigil of Industrial Solar Consulting.

February 28th: “Starbuck” (skipper John Wade) brought out Paul Ruiz-Lopez and departed with Liz Max, Amy Miles, and Sarah Jennings. 3 people toured the island.

West End Island Visitors

February 14th: Crowder, Duncan, Max, and Ruiz-Lopez conducted pinniped counts and recorded tag resights. 7 weaned pups were tagged on Indian Head Beach.

Weather & Ocean

The weather on the island this month was very dry with predominately (93%) northwest winds. The island received 0.03 inches of precipitation. The average midday air temperature was 12.5 ± 1 °C, which was 0.04 °C cooler than the long-term average for February. The low for the month was 8.5 °C at 6 AM on the 3rd and a high of 15 °C was recorded on the 26th. The average sea surface temperature was 11.61 ± 0.27 °C, with a low of 11.18 °C on the 16th and a high of 12.24 °C on the 2nd. This was 0.57 °C cooler than the long-term average for February.

Oiled & Entangled Wildlife

No oiled wildlife was observed this month.

4 California Sea Lions were observed to be entangled with monofilament or an unknown material.

Breeding Birds

Storm-Petrels – 4 netting sessions were conducted on the 20th, 21st, 26th, and 27th to collect blood and feather samples for hormone studies. 20 Ashy Storm-Petrels were caught and sampled.

Brandt’s Cormorant – Several hundred adults and immatures were observed at typical roost locations such as Sugarloaf, North Landing, and West End Head. Breeding plumages developing.

Pelagic Cormorant – Several dozen roosted at typical sites such as North Landing, Sugarloaf, Blowhole Peninsula, and Sea Pigeon Gulch. Breeding plumages developing.

Double-crested Cormorant – None were seen on the island.

Western Gull – Many adults were on territories at dawn, but most dispersed throughout the day. Increasing numbers were observed using the island’s shoreline to roost at typical locations such as Mussel Flat, Low Arch, Shell Beach, and Aulon Peninsula.

California Gulls – Variable numbers seen in typical gull roosting areas on Mussel Flat, Low Arch, and in the water.

Common Murre – Numbers were highly variable between very low numbers in the island's surrounding waters to near full colony attendance. Started colorband resight efforts on the 22nd.

Pigeon Guillemot – None were seen on the island.

Rhinoceros Auklet – None were seen on the island.

Tufted Puffin – None were seen.

Cassin's Auklet – Increasing numbers of birds returned to the island on dark nights to vocalize and excavate nest sites. Few birds were observed on the water near the island.

Pinnipeds

California Sea Lion – On average there were 1,786 (SD \pm 257) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 2,080 individuals on the 6th. Sea Lion Cove, Dead Sea Lion Flat, and Aulon Peninsula were the areas with the highest density of sea lions.

Steller Sea Lions – On average there were 66 (SD \pm 11) individuals counted on the standard weekly survey, with a high count of 77 on the 13th.

Northern Elephant Seal – Numbers of adults fell as the breeding season comes to a close. By the end of the month only 5 cows (all with pups) and 3 large males remained. There are 42 weaned pups on SEFI. On the end of month trip to West End there was 3 large males, 1 cow and 25 weaned pups.

Harbor Seal – Harbor seal numbers fluctuated greatly with tide and swell conditions during the weekly census. On average there were 61 (SD \pm 35) individuals counted, with a high count of 97 on the 6th.

Northern Fur Seals – Numbers grew throughout the month to a high of 208 on the 20th. There was an average of 138 (SD \pm 56) individuals counted.

Cetaceans

Standard Survey – 32 one-hour standard whale watches were conducted from the Lighthouse using the Spotter App when conditions allowed. Numbers from standard watches were combined with incidental observations. Gray Whales were observed around the island 25 days this month, with a high count of 19 on the 21st. One Humpback Whale was seen on the 24th and 10 Pacific White Sided Dolphins were seen on the 6th.

Sharks

An adult female *Zalophus* with a fresh shark bite was seen near the old fog horn on Marine Terrace. An adult *Phoca* was seen with a fresh bite on Mussel Flat

Salamanders

Two surveys were conducted this month. On the 3rd 33 large, 4 small and 3 tiny individuals were found under coverboards and on the 18th 19 large, 1 small and 3 tiny individuals were found.

Owls

Roost surveys were conducted daily, and three owls have been observed.

Crickets

No surveys this month.

Bats

No bats were detected this month.

Mice

Mice were rarely seen this month.

Inverts and Intertidal

No butterflies or dragonflies were seen.

Oceanic Events

Nothing to report.

Plants

Lasthenia maritima, *Erodium cicutarium*, *Calandria menziesii*, *Amsinckia spectabilis*, *Claytonia perfoliata*, and *Urtica* were seen blooming on the island. *Senecio* spp. was seen fruiting.

Violations

No violations were observed.

Maintenance

Island biologists Duncan and Warzybok conducted routine weekly maintenance checks on the PV system and generators. Monthly changes of water filters, water testing, and crane greasing were conducted.

Mechanics from Industrial Solar unsuccessfully attempted once again to repair both 15 kw PV generators (Buffy and Peevey) on Feb. 19. From their assessment, Buffy is not serviceable. They suggested Peevey could potentially be started with more parts replacements, but after further

discussion it was decided that repair was unlikely to be successful. Thus, both Buffy and Peevey have been retired from service. We are investigating replacement options. In the meantime, we have no generator to backup the PV system.

In mid-February, the water level in the gray water tank was found to be dropping. It was then found that a surge arrestor shorted in the septic control panel (apparently on Jan. 8). The shorted surge arrestor was removed by Garrett and David Gill (Bonny Doon Environmental) on Feb 19, and the septic system is functioning again. This needs to be replaced.

A faulty PV charge controller was replaced.

Maintenance Needs

- The PV and Buffy generators are not functioning most likely due to either fried voltage regulators or motherboards. Replacement needed.
- 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 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 Fisherman's Bay mooring ball has drifted away and needs replacement.
- The gutters and flashing on both houses is degrading and will need to be improved or replaced.

Solar/Electric

PV System

Distilled water used:	0 gallons
Distilled water reserves:	80 gallons

Generator run times

Kohler 15ROZ (Buffy):	0.1 hours	(1830.5 on meter)
Kohler 30REOZJC (Speedwagon):	5.6 hours	(641.9 on meter)
Kohler 40REOZK (Zeke):	14.5 hours	(447.2 on meter)
Kohler 15ROY61 (Peevey):	0 hours	(3954.2 on meter)
Webasto:	0 hours	

Power use

Facilities power use: Start = 82,786; End =83,240; for total of 454 kWh

Fuel Reserves

Diesel used:	15 gallons
Diesel drums: 11 @55gal:	620 gallons
Kohler 15ROZ (Buffy) Tank:	Full
Kohler 30REOZJC (Speedwagon) Tank:	Full
Kohler 40REOZK (Zeke) Tank:	Full
Kohler 15ROY61 (Peevey) Tank:	½ Full
Webasto Tank:	Full
Surplus gasoline for boat motors:	5 gallons
6 gallon boat tank:	Full
3 gallon boat tank:	Full

Water Reserves

Water used this month: Start = 281,468; End =283,273; for a total of 1,805 gallons	
Cistern:	7'4" or ~100,000 gallons
Gravity Tank:	empty
Settling Tank:	~4 feet

Sightseeing Boats

No sightseeing boats were observed this month.

Non-breeding birds

Pacific Loon, Eared Grebe, Sooty Shearwater, Brown Booby, Brown Pelican, Canada Goose, Surf Scoter, Black Scoter, Peregrine Falcon, Wandering Tattler, Spotted Sandpiper, Whimbrel, Ruddy Turnstone, Black Turnstone, Rock Sandpiper, Mew Gull, Ring-billed Gull, California Gull, Herring Gull, Iceland (Thayer's) Gull, Glaucous-winged Gull, Glaucous Gull, Black-legged Kittiwake, Barn Owl, Burrowing Owl, Northern Saw-whet Owl, Black Phoebe, Rock Wren, Hermit Thrush, Yellow-rumped (Audubon's) Warbler, Yellow-rumped (Myrtle) Warbler, Black-throated Gray Warbler, Fox Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, Western Meadowlark