

Farallon Islands Monthly Report

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

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Jim Tietz, Pete Warzybok
jtietz@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: John Garrett, Joey Negreann, Kurt Ongman, Theresa Rizza, Melissa Simon, Amanda Spears, Jim Tietz, and Pete Warzybok.

USFWS: Joy Albertson, Eva Benavides, Rick Dauber, Sean Finney, Gerry McChesney, Michael Pierson, Marco Siragusa, and Ed Van Til.

Collaborating researchers: Ryan Berger and Tony Orr (fur seal tagging).

Contractors: Scott Webster, Dominic Banks (crane); Leo Gamino, Mike Mills, Keenan Patton, Shawn Stutzman, Fernando Vigil, and Nick Walley (PV contractors)

Island Visitors

September 5th: **S.S. Helos** brought out Scott Webster and Dominic Banks to do annual maintenance on the EL crane.

September 9th: **“Huli Cat”** (skipper Mike Yokomizo) brought out Team Spinach crew Gerry McChesney, Joy Albertson, Michael Pierson, Ric Dauber, Eva Benavides, Sean Finney, and Marco Siragusa. PV Contractors Tyler Bublic and Nick Walley visited for the day to prepare for the solar upgrades. Scott Webster and Dominic Banks departed.

September 9th: **CG Helo** brought out Ed Van Til from FWS to work on a variety of maintenance projects around the island.

September 13th: **CG Helo** picked up Ed Van Til.

September 14th: **“So Good”** (skipper Harmon Shragge) brought out Kurt Ongman and Melissa Simon and departed with Theresa Rizza.

September 16th: **“Huli Cat”** (skipper Mike Yokomizo) brought out solar contractors Leo Gamino, Mike Mills, Keenan Patton, Shawn Stutzman, Fernando Vigil, and Nick Walley and departed with Team Spinach members Gerry McChesney, Joy Albertson, Michael Pierson, Ric Dauber, Eva Benavides, Sean Finney, and Marco Siragusa.

September 19th: **“Cordelia”** (skipper Alan Weaver) brought out Ryan Berger, Tony Orr, and Pete Warzybok to do fur sea tagging.

September 22nd: **“Outer Limits”** (skipper Jim Robertson) brought out resupplies and departed with Ryan Berger, Joey Negreann, Tony Orr, and Pete Warzybok. Ten toured the island.

September 23rd: **GC Helo** brought out Gerry McChesney and Mark Harris from USFWS to inspect the solar project.

September 24th: **“Huli Cat”** (skipper Tom Mattusch) picked up the solar contractors Leo Gamino, Mike Mills, Keenan Patton, Shawn Stutzman, Fernando Vigil, and Nick Walley.

September 24th: **CG Helo** picked up Gerry McChesney and Mark Harris.

September 29th: **“Bonkers”** (skipper Keith Sedwick) brought out Dan Maxwell, Rya Rubenthaler and Pete Warzybok and departed with Amanda Spears and Jim Tietz.

West End Visitors:

September 20th: Jim Tietz, Pete Warzybok, Ryan Berger, Tony Orr, Amanda Spears and Joey Negreann visited West End to conduct pinniped surveys, resight tags, and deploy flipper tags on fur seal pups.

September 21st: Jim Tietz, Pete Warzybok, Ryan Berger, Tony Orr, Melissa Simon, Kurt Ongman, and John Garrett visited West End to deploy flipper tags on fur seal pups and conduct necropsies on recently dead fur seal adults.

Weather & Ocean

The weather on the island this month was very spring like, with predominantly clear skies and northwest winds. The island received 0.04 inches of rain during September which occurred mostly as drizzle or accumulated fog. Fog occurred on 10% of weather observations. The average midday air temperature was 17.9 ± 1.5 °C, which was 1.92 °C higher than the long-term average for September. The low for the month was 12.5 °C at 7 AM on the 6th, and a high of 20.5 °C was recorded at 1500 on the 26th. The average sea surface temperature was 14.41 ± 0.8 °C, with a low of 13.34 °C on the 13th and a high of 16.86 °C on the 1st. This was 0.24 °C lower than the long-term average for September.

Oiled & Entangled Wildlife

Seven California Sea Lions and one Northern Fur Seal were observed to be entangled with either monofilament, nylon netting or strapping, or unknown material. Most individuals were immature or sub-adult. All entanglements were photo-documented, and photos were sent to Tony Orr at the Marine Mammal Laboratory. There was one oiled WEGU observed at North Landing.

Breeding Birds

Storm-Petrels – Storm petrel breeding activity continued through September with most active sites still attending chicks. The first chicks fledged from followed sites on September 21st and there were 16 sites with chicks remaining as of the end of the month.

Brandt's Cormorant – The last followed sites at the Corm Blind fledged by September 7th. A few scattered partly to mostly feathered chicks were still present at colonies through mid-September. Pellets were collected at the Corm Blind colony on the 27th to study cormorant diet.

Pelagic Cormorant – The one nest found in late August appears to have fledged two chicks. All other nests detected by Point Blue failed this year. By the end of September PECO numbers were greatly reduced with birds only roosting near the water's edge and no longer attending nesting sites.

Double-crested Cormorant – Breeding activity concluded in early September. Very few birds remain at the island.

Western Gull – Most remaining chicks had fledged by the end of August. Gull numbers were greatly reduced in September, as is usual for this time of year. Most adults and fledglings are using the island to roost, only attending breeding territories in the early morning or late evening.

California Gulls – Numbers of California gulls roosting on the island have steadily increased during September as adults and juveniles from other colonies arrive to roost at the island. The few that actually attempted to breed on the island this year all failed and no chicks hatched.

Common Murre – By the end of the month, all chicks either fledged or disappeared, and adults had abandoned colonies. Numbers of birds on the water fluctuated between 0 and 50.

Pigeon Guillemot – The last chick fledged from a followed site on September 14th. Foraging flocks were observed in the bays at the beginning of the month. Several molting adults and juveniles continued to be seen around the island at the end of the month.

Rhinoceros Auklet – Breeding activity is done for the year. A few individuals have been seen sporadically on the water around the island.

Tufted Puffin – Most puffins had completed breeding activity and departed by the middle of September. However, a few individuals were observed carrying fish toward nesting areas through the end of the month.

Cassin's Auklet – The last chick from a followed nest box fledged on September 10th. Since then, only a few scattered individuals have been observed on the water around the island or heard calling on the colony at night.

Pinnipeds

California Sea Lion – On average there were 4,537 (SD \pm 1050) individuals counted during the weekly pinniped census from the lighthouse, with a high count of 5,499 individuals on the 3rd. There was a high count of 505 pups on the 27th. Sea lions continued to climb high onto the Marine Terrace in the early mornings, but most depart for the water as the day warms up. Many dead adult animals have been seen around the island this month, possibly related to demoic acid toxicosis. A total of 21 dead adults and sub-adults were recorded during the period of September 10 to September 21 with two more found later in the month. All accessible animals were photo documented and samples were collected from 10 animals for analysis.

Steller Sea Lions – On average there were 72 (SD \pm 13) individuals counted, with a high count of 90 on the 12th. There were 10-13 large pups remaining on the island during September.

Northern Elephant Seal – E Seal numbers began to climb during September as immature animals returned to the island. The average monthly count was 74 animals with a high count of 106 seen on September 27th. A few sub-adult males have also been seen this month.

Harbor Seal – Harbor seal numbers were variable, due to the variety of tide and swell conditions during the weekly census. On average there were 32 (SD \pm 24) individuals counted, with a high count of 65 on the 7th.

Northern Fur Seals – Numbers counted during lighthouse surveys declined slightly during September as adults and pups returned to the water. The average count during surveys was 894 animals ($SD \pm 180$) with a high count of 1029 seen on September 7th. Pups detected during standard census likewise decreased as pups return to the water or become more difficult to distinguish from immature animals. We visited West End to tag fur seal pups on the 20th and 21st of September, tagging a total of 101 pups. We also resighted 3 immatures which had been tagged as pups on the island in 2017; these are the first fur seals tagged at SEFI to return to the island. A total of 9 fur seals (mostly adult females) were found dead during our visit. Necropsies were performed and samples collected from four of them to try to determine the cause.

Cetaceans

Standard Survey – 12 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 to create daily estimated totals. Humpback Whales were seen on most days during September, with a high count of 36 on the 15th. One to two Blue Whales were seen during the middle of the month. Two to three Gray Whales were seen most days until mid-September, when they seem to have departed the island. A small pod of 12 Pacific White-sided Dolphins was seen on the 18th.

Sharks

The shark season got off to a very slow start with only one attack observed on the last day of September. In addition, there was one adult female Eumatopias with a fresh shark bite observed on the 15th.

Salamanders

No surveys were conducted.

Owls

Daily burrowing owl roost surveys were initiated on September 15th, and the first owl of the fall arrived on September 23rd. It did not remain long on the island, and no owls were present as of the end of the month.

Crickets

No surveys were conducted during September, but individuals were observed sporadically during storm-petrel crevice checks.

Bats

Daily bat surveys were conducted throughout September, but only one individual was detected, a Hoary Bat flying high over Heligoland.

Mice

House mice numbers increased dramatically throughout September. The island is riddled with mouse burrows and mice are seen running around the island throughout the day. Mice have invaded both houses in large numbers, and more than 75 have been trapped inside the houses. Mice chewed through walls, old mouse proofing, and even the front door of the house. We have attempted to locate and seal entry points and have repaired all that we can find, but they continue to find new ways to get in. The Coast Guard house is particularly bad.

Inverts and Intertidal

Butterfly and dragonfly migration picked up during September with 5 species of butterfly (California Tortiseshell, Painted Lady, West Coast Lady, Monarch, Western Pygmy Blue) and 6 species of dragonfly observed (Familiar Bluet, Green Darner, Blue-eyed Darner, Black Saddlebags, Variegated Meadowhawk, and Twelve-spotted Skimmer). The most common butterflies were the two species of Ladies that breed on the island. The most common migrant was Monarch. For dragonflies, Black Saddlebags and Variegated Meadowhawk were the most common. In addition a Buff-gem Moth was spotted on the 15th and 18th.

Oceanic Events

Nothing to report.

Plants

Team spinach was on the island from September 9th to 16th to continue the invasive vegetation control and eradication project. They sprayed all accessible areas of SEFI for the typical invasives including New Zealand Spinach, Malva, Plantain, and Pigweed. A new species, Field Bindweed was discovered by the Carp Shop and was removed. In addition, a fruiting tomato plant was discovered on the hill next to the powerhouse. It was likewise removed.

Violations

Several minor violations of the no take Marine Reserve or the Special Closure around the island were noted during September, typically on nice days. On the 18th, there was an 18' whaler with 4 people on board fishing about 1 mile south of the island (CF 8095 HC). On the 24th, a 20' Wellcraft with 3 POB was fishing within the marine reserve (CF 7336 TZ). Also on the 17th, there was a low overflight violation when a Raven 549A (N905566) flew over the island at an approximate elevation of 500'. No wildlife was disturbed.

Maintenance

Island biologist Tietz 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. In addition, the pilot light on the stove was cleaned and replaced, and the mouse holes in the kitchen and front door were repaired. Ed Van Till from USFWS was on the island for several days and performed the following tasks: repaired the Ozonator in the Cistern, replaced the UV bulb and diffuser, replaced the radiator on the 30kw generator (Speedwagon), patched a leaking water pipe, and did some mouse proofing in the houses. In the anti-maintenance department the tag line snagged on the boat during a landing, resulting in one of

the safety rails getting ripped off. It was retrieved and repaired by Jim. Scott Webster and Dominic Banks replaced the slewing wire rope and refurbished the wedge-socket on the EL crane.

Maintenance Needs

- 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 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 Settling Tank measuring stick came undone and fell into the tank.
- Many sections of the wooden railing on Lighthouse Hill need repair.
- 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.
- Grease points on the crane were all working after Scott's visit but should be monitored and replaced if they have difficulty taking grease in the future.
- 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.
- Slow but steady leak in the PRBO fire hose spigot.
- 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.

Solar/Electric

PV System

Distilled water used:	0 gallons
Distilled water reserves:	23 gallons

Generator run times

Kohler 15ROZ (Buffy):	54.6 hours	(1798.7 on meter)
Kohler 30REOZJC (Speedwagon):	9.7 hours	(621.4 on meter)
Kohler 40REOZK (Zeke):	30.2 hours	(370.4 on meter)
Kohler 15ROY61 (Peevey):	46.1 hours	(3932.9 on meter)

Webasto: 0 hours

Power use

Facilities power use: Start = 79,640; End = 80,380; for total of 740 kWh

Fuel Reserves

Diesel used:	96.1 gallons (65.3 gallons used to run generators while PV system was being replaced)
Diesel drums: 13.2 @55gal:	726 gallons
Kohler 15ROZ (Buffy) Tank:	Full
Kohler 30REOZJC (Speedwagon) Tank:	Full
Kohler 40REOZK (Zeke) Tank:	Full
Kohler 15ROY61 (Peevey) Tank:	Full
Webasto Tank:	Full
Surplus gasoline for boat motors:	5 gallons
Safeboat tank:	Full
Zodiac tank:	Full

Water Reserves

Water used this month:	Start = 266,486; End = 269,200; for a total of 2,714 gallons
Cistern:	7'4" or ~100,000 gallons
Gravity Tank:	empty
Settling Tank:	empty

Sightseeing Boats

The Salty Lady was seen on 14 occasions with an average of 35 POB, Outer Limits was seen 1 time with 30 POB, Seaward was seen 1 time with 20, Hog Haven was seen 1 time with 12 POB. The Silver Fox and the Akula were also seen on several occasions looking for white sharks.

Non-breeding birds

Pacific Loon, Pink-footed Shearwater, Flesh-footed Shearwater, Buller's Shearwater, Sooty Shearwater, Short-tailed Shearwater, Blue-footed Booby, Brown Booby, Northern Gannet, Brown Pelican, Great Blue Heron, Great Egret, White-faced Ibis, Greater White-fronted Goose, Northern Pintail, Surf Scoter, White-tailed Kite, Sharp-shinned Hawk, American Kestrel, Merlin, Peregrine Falcon, Black-bellied Plover, Semipalmated Plover, Greater Yellowlegs, Wandering Tattler, Whimbrel, Marbled Godwit, Ruddy Turnstone, Black Turnstone, Surfbird, Western Sandpiper, Least Sandpiper, Pectoral Sandpiper, Dunlin, Wilson's Snipe, Red-necked Phalarope, Red Phalarope, Pomarine Jaeger, Parasitic Jaeger, Long-tailed Jaeger, Heermann's Gull, Ring-billed Gull, California Gull (migrants), Herring Gull, Iceland (Thayer's) Gull, Glaucous-winged Gull, Sabine's Gull, Elegant Tern, Common Tern, Arctic Tern, Eurasian Collared-Dove, White-winged Dove, Mourning Dove, Barn Owl, Burrowing Owl, White-throated Swift, Vaux's Swift, Anna's Hummingbird, Western Wood-Pewee, Yellow-bellied Flycatcher, Willow Flycatcher, Least Flycatcher, Hammond's Flycatcher, Black Phoebe, Say's Phoebe, Western Kingbird, Warbling Vireo, **Yellow-green Vireo**, Horned Lark, Purple Martin, Tree Swallow, Northern Rough-winged Swallow, Bank Swallow, Barn Swallow, Red-breasted Nuthatch, Rock Wren, House Wren, Pacific Wren, Golden-crowned Kinglet, Ruby-crowned Kinglet, Townsend's Solitaire, Swainson's Thrush, (russet-backed and olive-backed), Hermit Thrush, Varied Thrush,

Northern Mockingbird, European Starling, American Pipit, Cedar Waxwing, Orange-crowned Warbler, Yellow Warbler, Chestnut-sided Warbler, Magnolia Warbler, Audubon's Warbler, Myrtle Warbler, Black-throated Gray Warbler, Townsend's Warbler, Hermit Warbler, Blackpoll Warbler, Black-and-white Warbler, Ovenbird, MacGillivray's Warbler, Common Yellowthroat, Wilson's Warbler, Yellow-breasted Chat, Western Tanager, Spotted Towhee, **Cassin's Sparrow**, Chipping Sparrow, Clay-colored Sparrow, Brewer's Sparrow, Vesper Sparrow, Lark Sparrow, Black-throated Sparrow, Savannah Sparrow, Sooty Fox Sparrow, Song Sparrow, Lincoln's Sparrow, White-throated Sparrow, White-crowned Sparrow, Golden-crowned Sparrow, Oregon Junco, Black-headed Grosbeak, Lazuli Bunting, **Painted Bunting**, Bobolink, Red-winged Blackbird, Western Meadowlark, Yellow-headed Blackbird, Brewer's Blackbird, Brown-headed Cowbird, Orchard Oriole, Hooded Oriole, Bullock's Oriole, Purple Finch, Lesser Goldfinch.