PACIFIC SEABIRDS

A Publication of the Pacific Seabird Group

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Compiled by the Pacific Seabirds Committee

Updates from the Ornithological Council

The Pacific Seabird Group is part of the Ornithological Council, a consortium of scientific societies of ornithologists. We're here to support our societies, and their individuals members, with resources, community action, and individual assistance.

The OC recently developed a new Fact Sheet on the Proper Use and Cleaning of Bird Feeders. The Fact Sheet provides evidence-backed guidance to the bird feeding community on the proper use and cleaning of bird feeders. In addition to the longer fact sheet, which includes extensive references, there is a one-pager perfect for posting on bulletin boards and sharing. Both versions can be downloaded here.

You can learn more about the actions that the OC is taking to support ornithologists on the Ornithology Exchange, in the "News from the Ornithological Council" forum. There you'll also find timely articles about policy issues that affect ornithologists.

Please feel free to reach out to OC Executive Director Laura Bies at laurabiesoc@gmail.com if we can be of assistance!

From the Archive

10 years ago, a Regional Report update from Alaska

The 2016 seabird monitoring crew at St. Lazaria Island consisted of **Nicole Koeltzow**, **Alyssa Eby**, **Danielle Ramsden**, and **Jerry Deppa**, with assistance from **Leslie Slater** (AMNWR). Data were collected at St.Lazaria for the following:Population trend - Storm-petrels (Fork-tailed and Leach's, *Oceanodroma furcata, O. leucorhoa*, respectively), Pelagic Cormorant (*Phalacrocorax pelagicus*), Glaucous-winged Gull (*Larus glaucescens*), Pigeon Guillemot (*Cepphus columba*), Murres (Common and Thick-billed, *Uria aalge, U. lomvia*, respectively), Rhinoceros Auklet, Tufted Puffin (*Fratercula cirrhata*). Annual productivity - Storm-petrels(Fork-tailed and Leach's), Pelagic Cormorant, Glaucous-winged Gull, Murres (Common and Thick-billed), Rhinoceros Auklet, Tufted Puffin. Chick growth - Storm-petrels (Fork-tailed and Leach's), Rhinoceros Auklet. Diet sampling - Storm-petrels (Fork-tailed and Leach's), Glaucous-winged Gull, Rhinoceros Auklet. A Forrester Island crew consisting of **Tony DeGange**, **Jay Nelson, Barb Blackie, Rebecca Himschoot, Roberta Swift** (USFWS - Migratory Bird Management Region 1), and **Leslie Slater** (Alaska Maritime National Wildlife Refuge) collected data on Rhinoceros Auklets (*Cerorhinca monocerata*).

REGIONAL REPORTS

Edited by Aurora Kuczek, Jackie Lindsey, and Robb Kaler

ALASKA & RUSSIA

Compiled by Aurora Kuczek

Anne Schaefer

The third and final year of the multi-partner Alaska Statewide Aleutian Tern Survey took place in June and July. During 2025, aerial surveys were conducted to locate apparent tern colonies in western and northwest Alaska, followed by ground surveys at a spatially balanced random sample of colonies to confirm species identification and obtain abundance estimates. Year three was coordinated by Anne Schaefer (Prince William Sound Science Center) with heavy support from the Aleutian Tern Working Group (Megan Boldenow and Heather Renner as project leads in Year 3) and Trent McDonald (McDonald Data Sciences). Surveys were conducted by lead surveyors

Robin Corcoran and Sarah Hoepfner (Prince William Sound Science Center) along with U.S. Fish and Wildlife Service staff and volunteers and National Park Service staff. The Office of Aviation Services and multiple National Wildlife Refuges supported these efforts, including Yukon Delta and Selawik. In addition, skiff-based surveys occurred in the western Aleutian Islands, supported by Alaska Maritime. Data analysis is underway, and preliminary results were presented during the PSG Annual Meeting. We hope a final population estimate for Alaska-breeding Aleutian Terns (*Onychoprion aleuticus*) will be shared during 2026.

In 2025, Anne Schaefer, Mary Anne Bishop, and Sarah Hoepfner (Prince William Sound Science Center) conducted at-sea marine bird surveys in Prince William Sound, Alaska to document density and distribution patterns in and around the oil-tanker escort lane during the non-breeding season. Schaefer also led at-sea marine bird surveys in eastern Prince William Sound to examine marine bird density and distribution relative to mariculture (seaweed and oyster) development. These surveys are a component of a larger collaborative research and monitoring program studying the impact of mariculture farms on the environment and identifying environmental drivers of farm productivity. Schaefer and Bishop also led a pilot study to survey seabird colonies on the eastern Copper River Delta for the first time in 40 years. A formal survey will be conducted in summer 2026. Additionally, Schaefer assisted a working group within the PSG Aleutian Tern Technical Committee with the coordination and implementation of a statewide Aleutian tern survey in Alaska. This was the third and final year of a multi-year effort. The 2025 study areas included western/northwestern Alaska and the western Aleutian Islands.

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CHUKCHI AND BERING SEAS

Annual seabird monitoring in the Pribilof Islands at St. Paul and St. George was led by Matt Rustand [U.S. Fish and Wildlife Service, Alaska Maritime National Wildlife Refuge (USFWS, AMNWR)] with summer-long field crews consisting of Frank Mayer and Evan Buck on St. Paul, and Danielle Donadio and Ellie

Bretscher on St. George. Both crews collected data on a variety of species including Common Murres (*Uria aalge*), Thick-billed Murres (*U. lomvia*), Least Auklets (*Aethia pusilla*), Black-legged Kittiwakes (*Rissa tridactyla*), Red-legged Kittiwakes (*R. brevirostris*), and Red-faced Cormorants (*Phalacrocorax urile*). The crews collected productivity, diet, adult survival and population data. On St. George, the crew retrieved geolocators and deployed additional geolocators on Common and Thick-billed Murres in a collaborative effort with University of Alaska, Fairbanks.

At Cape Lisburne, Arthur Kettle and Matt Rustand (USFWS, AMNWR) installed time-lapse cameras in July for monitoring breeding success of Common and Thick-Billed Murres (*Uria aalge* and *U. lomvia*) and Black-legged Kittiwakes (*Rissa tridactyla*).

ALEUTIAN ISLANDS

Annual seabird monitoring at Aiktak (eastern Aleutians) and Buldir (western Aleutians) islands was led by Nora Rojek (USFWS, AMNWR) with summer-long field crews consisting of Shiho Koike, Ross Bullington, and Nick Ramsey on Buldir, and Stella Solasz and Talia Soalt on Aiktak. At Buldir Island, the crew collected productivity, diet and population data on a variety of species including Common and Thick-billed Murres (*Uria aalge* and *U. lomvia);* Parakeet (*Aethia psittacula*,) Least (*A. pusilla*), Whiskered (*A. pygmaea*) and Crested (*A. cristatella*) Auklets; Horned and Tufted Puffins (*Fratercula corniculata* and *F. cirrhata*); Black-legged and Red-legged Kittiwakes (*Rissa tridactyla and R. brevirostris*); and Fork-tailed and Leach's Storm-Petrels (*Hydrobates furcatus* and *H. leucorhous*). At Aiktak Island, the crew monitored Black Oystercatchers (*Haematopus bachmani*), Common and Thick-billed Murres (*Uria aalge* and *U. lomvia*); Ancient Murrelets (*Synthliboramphus antiquus*); Horned and Tufted Puffins (*Fratercula corniculata* and *F. cirrhata*); Glaucous-winged Gulls (*Larus glaucescens*); and Fork-tailed and Leach's Storm-Petrels (*Hydrobates furcatus* and *H. leucorhous*).

From late May to mid-June, Stacey Buckelew, Ashley Lutto, Jesi Lobato (USFWS, Invasive Species Program), Nora Rojek, Ray Buchheit, Lauren Flynn, (USFWS, AMNWR), Debbie DeVore (USFWS, Division of Natural Resources and Conservation Planning), and David Sinnett (USDA, APHIS Wildlife Services) conducted Norway rat pre-eradication baseline bird surveys on Great Sitkin Island in the central Aleutians, and invasive species surveys in the Islands of Four Mountains in the eastern Aleutians, supported by the R/V Tiˆglaˆx. Amukta, Carlisle, Chuginadak, Herbert, Kagamil, Uliaga, and Yunaka Islands were visited, where arctic fox (*Vulpes lagopus*) eradication efforts occurred (except on Chuginadak) approximately 30-40 years ago. No evidence of fox presence was observed, and no new invasive species were detected.

In the second half of June, Heather Renner, Nora Rojek, Ray Buchheit (USWFS, AMNWR), Mark Laker (USFWS, Division of Refuge Natural Resources), Brad Benter, Thomas Farrugia, and Paulo Catry (USFWS volunteers) conducted surveys for Aleutian Tern (*Onychoprion aleuticus*) in the western Aleutians. Surveys occurred at numerous islands from Attu Island to Adak Island, supported by the R/V Tiˆglaˆx.

In late July to early August, Nora Rojek, Matt Rustand, Caylen Cummins, Zoe Strothkamp, Dean Kildaw, and Deborah Rudis (USWFS, AMNWR and USFWS, Inventory & Monitoring Program) conducted skiff-based circumnavigation surveys supported by the R/V Tiˆglaˆx at Buldir Island and in the Delarof Island group in the western Aleutians. Islands visited were Amatignak, Gareloi, Kavalga, Ogliuga, Skagul, Ulak, and Unalga. The surveys focused on Red-faced and Pelagic Cormorants (*Phalacrocorax urile* and *P. auritus*) but all other avian species and marine mammals onshore and nearshore were counted and seabird colony locations documented. Additionally, Nora Rojek, Zoe Strothkamp,

and Becca Scully (USFWS, Pacific Seabird Program) conducted seabird surveys at Bogoslof Island in the eastern Aleutians, and Kasatochi and Koniuji islands in the central Aleutians.

ALASKA PENINSULA

Annual seabird monitoring at Chowiet Island (Semidi Islands group) was led by Brie Drummond (USFWS, AMNWR), with a summer-long field crew of Nathan Dubrow and Ayla Liss. They collected productivity, diet, and population data on a variety of species including Common and Thick-billed Murres (*Uria aalge* and *U. lomvia*), Parakeet and Rhinoceros Auklets (*Aethia psittacula* and *Cerorhinca monocerata*), Horned and Tufted Puffins (*Fratercula corniculata* and *F. cirrhata*), Black-legged Kittiwakes (*Rissa tridactyla*), Glaucous-winged Gulls (*Larus glaucescens*), and Northern Fulmars (*Fulmarus glacialis*).

GULF OF ALASKA

Annual seabird monitoring at St. Lazaria Island in southeast Alaska was led by Brie Drummond (USFWS, AMNWR) with a summer-long field crew of Jennifer Lewis and Zoe Strothkamp. They collected productivity, population, and diet data on Common and Thick-billed Murres (*Uria aalge* and *U. lomvia*), Rhinoceros Auklets (*Cerorhinca monocerata*), Tufted Puffins (*Fratercula cirrhata*), Black Oystercatchers (*Haematopus bachmani*), Glaucous-winged Gulls (*Larus glaucescens*), Fork-tailed and Leach's Storm-Petrels (*Hydrobates furcatus* and *H. leucorhous*), and Pelagic Cormorants (*Urile pelagicus*). In May, Brie Drummond and Ryan Mollnow (USFWS, Division of Natural Resources) deployed and retrieved geolocators on Fork-tailed and Leach's Storm-Petrels at St. Lazaria.

At East Amatuli Island, Arthur Kettle, Ray Buchheit, and Sam Stark (USFWS, AMNWR), installed time-lapse cameras in May for season-long monitoring of Common Murres (*Uria aalge*), Tufted Puffins (*Fratercula cirrhata*), and Black-legged Kittiwakes (*Rissa tridactyla*). In August, Arthur Kettle, Astarte Brown, and Michael Forozis surveyed monitoring plots and sampled chick diets of Tufted Puffins and Fork-tailed Storm-Petrels (*Hydrobates furcatus)*.

In July, Brie Drummond and Allyson Larned (USFWS volunteer) deployed and retrieved geolocators on Fork-tailed Storm-Petrels at East Amatuli.

SPECIES

ANMU;BLKI;BLOY;COMU;
CRAU;DCCO;FTSP;GWGU;
HOPU;LEAU;LHSP;NOFU;PA
AU;PECO;RFCO;RHAU;RLKI;
TBMU;TUPU;WHAU

Research and Monitoring on Middleton Island, Alaska

Scott Hatch and others

The 2025 field season on Middleton Island brought together an international team to continue long-term monitoring and complete a wide variety of short-term research projects. **Scott Hatch** (Institute for Seabird Research and Conservation (ISRC)), **Chinatsu Nakajima** (Nagoya University), **Jumpei Okado** (Nagoya), and **Shannon Whelan** (ISRC) opened the field station in early April. The core research team, consisting of camp leader **Éliane Miranda** (McGill University), ISRC volunteers and university students **Katelynn Normand** (McGill), **Karim Bouzidi Idrissi** (Montreal), **Gloria Jin** (Texas), **Lorelei Robinson** (California), **Luciano Camacho Calle** (McGIll), **Trenton Zimmerman** (Colorado), and **Alexia Nezondet** (Université de Strasbourg) stayed from early May until mid-August. **Travis Stanitis** (Bucknell University), **Abby Eaton** (McMaster University), and **Flynn O'Dacre** (McMaster) supported the team for much of the summer. **Kyle Elliott** (McGill), **Mélanie Guigueno** (McGill), **Susan Sookram** (Bethel), **Don-Jean Léandri-Breton** (Nagoya), **Akiko Shoji** (Nagoya), **Morgan Benowitz-Fredericks** (Buck-

nell), and **Emily Choy** (McMaster) joined to support student work mid-season, and **Martha Hatch** (ISRC) assisted in closing the field station. A wide breadth of movement, physiology, behaviour, contaminant, and diet studies were completed for several species. With respect to long-term monitoring, Black-Legged Kittiwakes (*Rissa tridactyla*) and Tufted Puffins (*Fratercula cirrhata*) had high breeding success, Rhinoceros Auklets (*Cerorhinca monocerata*) were near-average, and Pelagic Cormorants (*Urile pelagicus*) showed low breeding success. The Middleton team observed a strong return of capelin (*Mallotus villosus*) to the surface-foraging kittiwake diet, a pattern that was less strong in the pursuit-diving auklet diet.

NEW ZEALAND

Compiled by Aurora Kuczek

Seabird plastic colour preferences: King penguins and gentoo penguins prefer to behaviourally interact with white plastics over other colours

Ariel-Micaiah Heswall, Kristal Cain, Megan Friesen, Anne Gaskett

Reference/Citations:

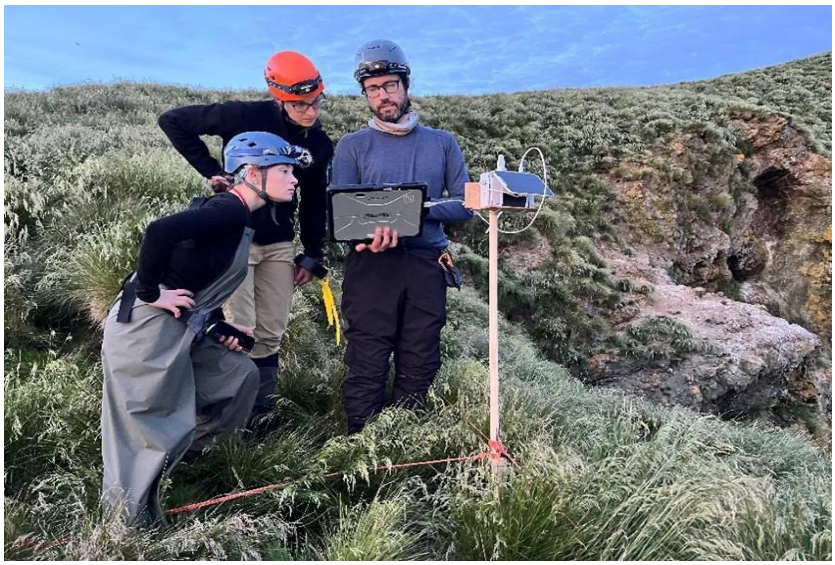
Heswall, A. M., Cain, K. E., Friesen, M. R., & Gaskett, A. C. (2025). King penguins and gentoo penguins prefer to behaviourally interact with white plastics over other colours. Applied Animal Behaviour Science, 106891.

Heswall, A. M., Rayner, M., Wijaya, B. N., Miller, L., Cain, K. E., Friesen, M. R., & Gaskett, A. C. (2025). Clear-white plastics are most common in global oceans and seabird stomachs, but local species can ingest specific colours. Marine Pollution Bulletin, 215, 117827.

Plastic has detrimental impacts on seabirds globally. Our past research, performing a literature review and dissections on 13 species of Procellariiform petrels and shearwaters (n = 72), described a correlation between plastic colour in the ocean and plastic colour ingested. We found that white plastics are the colour most commonly found in the ocean and also more frequently ingested by seabirds. Do seabirds prefer to eat white plastics? Or are white plastics ingested just because they are very common? To evaluate whether seabirds prefer to behaviourally interact with white plastics over others, we performed standardised behavioural assays using four different colours of bottlecaps (white, red, black, and blue). Our study species included two species of captive penguins; Gentoo Penguins (*Pygoscelis papua*) and King Penguins (*Aptenodytes patagonicus*). We simultaneously presented the bottlecaps on a colour board to the penguins and quantified the behavioural responses. This study was approved by the Animal Ethics Committee of the University of Auckland (No. AEC 22429). Overall, the penguins showed a strong active colour preference towards the white bottle cap. Our research has shown that white colour plastics may be highly problematic for seabirds because not only are they more common in the ocean, but they are also commonly ingested and behaviourally preferred. This warrants further investigation to understand the sensory cues and benefits associated by seabirds towards white. By researching how plastic colours may be exploiting the seabirds' sensory biases, novel sensory mitigation techniques can be developed to conserve a highly threatened group.

CANADA

Compiled by Aurora Kuczek



Mark Hipfner (Environment and Climate Change Canada, Delta – Wildlife Research Division) reports that summer 2025 marked the 32nd year of operation of ECCC's seabird research program on Triangle Island. Triangle Island supports the largest aggregation of breeding seabirds in the eastern North Pacific Ocean south of Alaska, and British Columbia's most diverse seabird community of 13 breeding species. The 2025 field crew consisted of **Randal Lake** and **Christine Rock** (both ECCC, Nanaimo – Canadian Wildlife Service), **Sarah Hudson**, **Hannah Hall**, and **Devin de Zwaan** (all ECCC, Delta – WRD) as well as **Katie Studholme** (ECCC, Dartmouth – WRD) and **Ben Boulton** (contractor, Marea Baja Consulting). The research team in 2025 collected information on diets of nestling Cassin's Auklets (*Ptychoramphus aleuticus*), adding to a long-term dataset for this SARA-listed species, a Climate Change sentinel. This work is done in collaboration with **Moira Galbraith** (Fisheries and Oceans Canada, Sidney - Institute of Ocean Sciences). Other projects undertaken on Triangle Island in 2025 included deploying GPS tags on 12 adult Tufted Puffins (*Fratercula cirrhata*) and 4 Rhinoceros Auklets (*Cerorhinca monocerata*) as part of a multi-year program under the Oceans Protection Plan (OPP) to delineate the at-sea distributions of key seabird species, and to assess how effectively the boundaries of the Scott Islands marine National Wildlife Area (designated in 2018) envelop key foraging areas for seabirds in the region. The crew also retrieved GLS tags from 4 Tufted Puffins tagged in 2024, in collaboration with PhD student **Katelyn Stoner** (Oregon State University, Corvallis, OR). The Tufted Puffin is a species experiencing dramatic population declines throughout its range.

Additional research was conducted on two other major Rhinoceros Auklet colonies in 2025. Hipfner, **Guy St.-Amour** (ECCC, Delta – WRD), and **Kevin Kardynal** (ECCC, Saskatoon – WRD) visited Pine Island off BC's Central Coast; and Hipfner and **Adam Crosby** (ECCC, Saskatoon – WRD) along with **Motohiro Ito** and **Tatsuki Kojima** (Toyo University, Japan) visited Lucy Island off BC's North Coast. The main goal of this program, which started in 2006, is to study effects of oceanographic variation across multiple trophic levels, focusing on the diets fed to auklet chicks and the diets of their major forage fish prey, the Pacific sand lance (*Ammodytes personatus*) and Pacific herring (*Clupea pallasii*). While working with these colonies in 2025, we concurrently completed the 13th year of a project investigating stock-specific consumption of Pacific salmon, *Oncorhynchus* spp., by seabirds in BC waters. In collaboration with Galbraith, we also completed the 17th year of a project investigating the distribution and abundance of microplastics in northeastern Pacific Ocean food webs. On Pine Island, the crew also obtained cores from trees and small ponds, which our collaborator, **Kathryn Hargan** (Memorial University, St. John's, NF), will analyse to investigate long term ecological

change on the island, including historical changes in seabird population size.

There was also winter field work completed in early January to late February of 2025. De Zwaan, Hall, Hipfner, St.-Amour**, Sonya Pastran, Vivian Pattison** and **Anneka Vanderpas** (all ECCC, Delta – WRD), along with **Neena Pradal (**Simon Fraser University, Burnaby), **Marie Auger-Methé** and PhD student **Shabnam Shadloo** (University of British Columbia, Vancouver) sampled Glaucous-winged Gulls (*Larus glaucescens*) around the BC portion of the Salish Sea, a major wintering area for marine birds from across the continent. The main goal of this project is to examine the cumulative effects of habitat (urban to natural), diet, pathogens (Avian Influenza Virus, toxoplasmosis) and contaminants (including PFAS and Hg) on the physiological health, survival, and behaviour of gulls that spend winter in the region. For outgroups, the crews also sampled on the west (Tofino and Ucluelet area) and north (Campbell River to Port Hardy) coasts of Vancouver Island in 2025. This work is done in collaboration with **Tony Williams** (SFU). In addition, their colleagues **Jeffrey Costa** and **Alice Domalik** (both ECCC, Delta – Canadian Wildlife Service) deployed GPS tags on 15 Short-billed Gulls (*Larus brachyrhynchus*) in winters 2025 and 2026 at sites in southern BC. The tracking data will be used to examine winter habitat use patterns and delineate migratory routes and stopover sites. The data will also be used to examine the movements of Glaucous-winged, Short-billed and California (*Larus californicus*) gulls in relation to herring and eulachon spawning events along the west coast of North America, with Auger-Methé and MSc student **Binyue Lu** (UBC).

Stephanie Avery-Gomm, Stephanie.Avery-Gomm@ec.gc.ca, Environment and Climate Change Canada

My work over the past year has spanned two interconnected areas: cumulative effects assessment for offshore wind energy development, and coordinating regional responses to emerging seabird mortality events.

On the offshore wind side, I am co-PI on a multi-institutional collaboration that has developed a flexible framework for assessing cumulative effects of offshore wind and other pressures on marine wildlife, at a regional scale (Ferguson et al., 2025, https://doi.org/10.1016/j.eiar.2025.107912). Together with Megan Ferguson of the Biodiversity Research Institute and others, we are now in the late stages of demonstrating the framework through a case study on Northern Gannets (*Morus bassanus*) in Atlantic Canada, a region preparing for large-scale offshore wind development, integrating pressures such as collision risk, oil pollution, fisheries bycatch, and vessel disturbance.

I also co-lead the Atlantic Marine Bird Cooperative's Community Science and Marine Bird Health Working Group with Liam Taylor of Bowdoin College. This international network of researchers and managers has completed several initiatives over the past few years, including developing a repository of HPAI Response Resources (https://drive.google.com/drive/folders/1WCvHrRoV6MT4Nj8HvFgHfZ6R325LcvC-) and a peer-reviewed evaluation of participatory science data for characterizing wildlife mass mortality events (https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.70051). Our current focus is on an emerging and poorly understood pattern of tern chick mortality where chicks are dying within days of hatching with no clear infectious cause identified to date. Since 2022, this pattern has been occurring across multiple breeding sites in the northeastern US and Atlantic Canada. The Working Group is currently focused on synthesizing existing data, characterizing the spatial and temporal scope of the issue, and building the coordination infrastructure needed to respond more effectively going forward.

In 2025, **Laskeek Bay Conservation Society** carried out our 36th field season at East Limestone Island, Laskeek Bay, Haida Gwaii, British Columbia, Canada. Field camp was staffed by Rian Dickson, Matthew Peck and Jessica Robinson, supported by Judy Hilgemann in town. Three student interns and two dozen volunteers joined the team over our 11-week field season. With a wide array of marine and terrestrial ecological monitoring programs, our seabird monitoring focused on boat-based transect surveys for all marine bird species, nest box-based camera observations of Pigeon Guillemots, and Ancient Murrelet counts. We also documented the presence of a new Rhinoceros Auklet colony on nearby Reef Island.

Laurie Wilson (Environment and Climate Change Canada [ECCC] - Canadian Wildlife Service [CWS], Delta, British Columbia [BC]) coordinated the Pacific CWS Seabird Colony Monitoring Program. In 2025, we visited Ramsay Island in the Gwaii Haanas National Park Reserve and Haida Heritage Site. This was the first time CWS had visited the island since the Norway Rat (*Rattus norvegicus*) incursion in 2019. Our objectives were: (a) to assess population trends of breeding Ancient Murrelets (*Synthliboramphus antiquus*, ANMU) and Cassin's Auklets (*Ptychoramphus aleuticus*, CAAU) by resurveying permanent monitoring plots; and (b) to conduct a preliminary study that helps to understand seabird-rat dynamics on Ramsay Island. To address the latter objective, we deployed Audio Recording Units (ARUs) to document bird call rates and provide information on the scope of seabird activity currently observed across the colonies. We also deployed trail cameras to gather information on passive rat detections in proximity to the ARUs.

The trip was conducted by ECCC-CWS staff in collaboration with Parks Canada and the Haida Nation to help strengthen interagency partnerships and help build on-island capacity to conduct seabird colony research in the future.

Field crew included **Laurie Wilson**, **Alice Domalik**, **Erika Lok**, **Patrick O'Hara** (ECCC-CWS, Delta, BC); **Glen Keddie** (ECCC-CWS contractor, Smithers, BC); **Erin Price, Eilean McCutchon, Charlotte Houston, Clint Kendrick** (Parks Canada, Skidegate BC); **Jonas Prevost** (Haida Nation, Skidegate BC).

Finally, Laurie continues with her monitoring of seabird bycatch in commercial salmon gillnet fisheries. Reports of bird entanglements from DFO test fisheries with observer programs and bycatch events reported by fishers are tallied; these data will be used to derive seabird bycatch estimates.

HAWAI'I

Compiled by Aurora Kuczek

US Fish and Wildlife Service, Region 1, Migratory Birds and Habitat Program

Updates on seabird colony and habitat conservation projects through the REPI program:

Since 2023, our program has helped procure funding for four projects to benefit seabird conservation in the Hawaiian Islands, including seabird colonyRestoration at James Campbell National Wildlife Refuge on Oʻahu, Kauaʻi National Wildlife Refuge Complex, and Mokio Preserve on Molokaʻi. This funding was accessed through the Readiness and Environmental Protection Integration (REPI) **program which aims to reduce land use conflicts and environmental restrictions on military activities by building partnerships and cost-sharing projects that promote environmental conservation and management outside military lands. These projects follow priorities set in the Seabird restoration priorities for the U.S. Pacific Islands (Raine et al. 2025) developed in collaboration with Archipelago Research and Conservation.**

Past years' funding is being directed to construct a 640-acre fence at James Campbell NWR to protect seabirds and waterbirds by 2026. Ongoing work at the Kauaʻi Refuge Complex, Kilauea Point includes invasive

species management and fence maintenance to benefit nesting Laysan Albatross (*Phoebastria immutabilis*), Wedge-tailed Shearwaters (*Ardenna pacifica*), Red-footed Boobies (*Sula sula*), Red-tailed Tropicbirds (*Phaethon rubricauda*), Nēnē (Hawaiian Goose, *Branta sandvicensis*), and other endangered waterbirds. This funding and partnership allowed removal of invasive predators within a predator proof fence to benefit seabirds and Nēnē.

In 2026, funding was awarded to Molokaʻi Land Trust to restore coastal strand habitat and expand seabird social attraction efforts within a recently completed 100-acre predator exclusion fence at Mokio Preserve. Target species for the social attraction component include Laysan Albatross, Black-footed Albatross (*Phoebastria nigripes*), Red-footed Booby, and Christmas Shearwater (*Puffinus nativitatis*).

In 2025, funding was awarded to the conservation project which aims to address another significant conservation issue for Procellariid seabirds: minimizing anthropogenic light at night and preventing seabird fallout. This project, lead by Oikonos Ecosystem Knowledge, Hawaiʻi Pacific University, and Design Lights Consortium -- sponsored by Marine Corps Base Hawaii -- will test different lighting spectra to determine which lighting conditions are least impactful on Hawaiian seabirds at a high-density seabird colonies in the remote and Main Hawaiian Islands. The results of this study will inform lighting retrofits at locations along the coast of Southeast Oʻahu which is a significant seabird fallout hotspot. Seabirds targeted in the lighting-response research component of the project are Wedge-tailed Shearwaters and Bonin Petrels (*Pterodroma hypoleuca*), but we are hoping that the findings of the study may inform conservation measures for other Procellariid species as well. The first round of lighting trials will take place on Midway Atoll NWR in 2026.

Updates on Albatross Demography Project:

The USFWS Albatross Demography Program continued in 2025-2026 at Midway and Kilauea Point. One publication based on these data is in press. Two presentations are planned for the World Seabird Conference in 2026.

Emma Kelsey, **Josh Adams,** and **Laney White** in collaboration with **Bryn Webber,** and **Christa Mcload** at Kīl auea Point National Wildlife Ref-
uge, and **Dylan Blanchard**, **Talia Soalt,** and **Eric VanderWerf** at Pacific Rim Conservation Science, are implementing a new long-term population size monitoring plan for Red-tailed (*Phaethon rubricauda*) and White-tailed Tropicbirds (*P. lepturus*), Red-footed Booby (*Sula sula*), and Wedge-tailed Shearwaters (*Ardenna pacifica*) at Kīlauea Point National Wildlife Refuge.

Josh Adams, **Jackie Chistolini**, and **Emma Kelsey** (USGS WERC) in collaboration with **Joy Tamayose** (Haleakalā National Park), have been analyzing long term records of ʻuaʻu (Hawaiian Petrel, *Pterodroma sandwichensis*) at Haleakalā National Park. The objectives of the effort are to determine long-term trends in ʻuaʻu nest occupancy and reproductive output, and summarize long-term trends in ʻuaʻu mortality.

Maui Nui Seabird Recovery Project

Jenni Learned

The Maui Nui Seabird Recovery Project (MNSRP) manages programs for the recovery of the endangered ʻaʻo (*Puffinus newelli,* Newell's Shearwater), ʻuaʻu (*Pterodroma sandwichensis*, Hawaiian Petrel), and ʻakēʻakē (*Hydrobates castro*, Band-rumped Storm-Petrel) on the island of Maui, Hawaiʻi,
USA. Project work also includes monitoring and protection of ʻuaʻu kani (*Ardenna pacifica,*

Wedge-tailed Shearwaters) on Maui and Molokai, and the recovery and release of downed seabirds. Educational and outreach programs are emphasized to increase awareness about seabirds, and actions that can be taken to protect and restore them and their threatened habitats. MNSRP works closely with partners from non-profit conservation agencies, the Hawai‘i State Division of Forestry and Wildlife, Haleakalā National Park, and other collaborators with corresponding goals. Highlights from 2025 are detailed below.

1. In partnership with the Listening Observatory for Hawaiian Ecosystems (LOHE lab), a passive acoustic monitoring (PAM) survey was initiated in 2024 through funding from the National Fish and Wildlife Foundation to locate breeding aggregations of ‘akē‘akē. Over two breeding seasons (2024-2025), 100 locations across Maui were successfully sampled, with positive ‘akē‘akē detections at 36% of sites. Significant call densities were detected at multiple locations representing distinct geographic regions across the island. These results are crucial in developing recovery strategies for ‘akē‘akē, since breeding locations were previously unknown for the species on Maui. Haleakalā National Park conducted similar surveys, resulting in additional positive detections within the park. The PAM study was extended to include two additional years of survey (100 more locations), including analysis for ‘ua‘u and ‘a‘o, and surveys on Molokai. Ultimately, these data will inform ground searches and the establishment of *in situ* protections, and will describe how endangered seabirds in Maui Nui are using the landscape at a larger scale.

2. Annual ornithological radar surveys to track seabird passage rates continued with surveys at fifteen sites around Maui throughout the month of June. Trends are consistent among all modern survey years (2021-2025) with stable or increasing rates at sites surrounding the large breeding population of ‘ua‘u on Haleakalā in east Maui. Additional survey sites were added in 2025 to investigate seabird activity over the active seabird restoration site at Makamaka‘ole in West Maui.

3. MNSRP continues to maintain the predator exclosures at the Makamaka’ole seabird protection site in west Maui, and monitor for the attendance of breeding seabirds. Social attraction and nest boxes are established for ‘ua‘u, ‘a‘o, and ‘akē‘akē. ‘A‘o have been well-established for several years; however, the population remains female-biased with only three successful fledges documented since 2020. In 2025, for the first time, all three species were documented visiting artificial burrows during the breeding season. In partnership with the Kaua‘i Endangered Seabird Recovery Project (KESRP), a GLS tracking project was initiated to recover information about foraging habits and at-sea behaviors of ‘ua‘u and ‘a‘o. In early 2026, construction began to replace the two aging predator exclusion fences with one continuous fence, constructed with updated material and design, to enclose one ~40 acre seabird protection site.

4. 2025 was another successful year for ‘ua‘u within the upper Nakula Natural Area Reserve and Kahikinui Forest

reserve, with an annual reproductive success rate of 63%. New burrows are established within the reserves annually, bringing the total count monitored by MNSRP to 121. The Haleakalā population of ʻuaʻu benefits greatly from management efforts including predator removal performed by partnership agencies including Haleakalā National Park, Hawaiʻi State Division of Forestry and Wildlife (DOFAW), and Invenergy's Auwahi Wind. MNSRP also completed the seventh vegetation survey as part of a long-term study, where plant community composition is documented at 55 established plots every other year.

5. Maui experienced higher than average seabird fallout during the fledging season in 2025, with a 250% increase over the average for ʻuaʻu and ʻuaʻu kani. The majority of seabirds were released successfully to sea. Analysis of MNSRP's long-term mark-recapture database suggests that the fallout recovery program has significant positive impact on breeding ʻuaʻu kani, with fallout chicks returning to breeding colonies upon maturity.

Long-term population monitoring of ʻuaʻu kani at four coastal colonies on Maui, two on Molokai, and one on Molokini continues through reproductive success surveys and burrow inventories. Monitoring reveals a positive impact of habitat restoration and predator removal on all colonies, and an overall increase in the number of breeding burrows and extent of breeding territory utilized by ʻuaʻu kani.

Hawai'i Wildlife Center (HWC)

Linda Elliott and Juan Carlos Guerra

Hawaiʻi Wildlife Center:

Hawaiian archipelago seabird and shorebird rehabilitation patients treated at Hawaiʻi Wildlife Center (HWC) on March 1, 2025 to March 31, 2026, consisted of 1,394 seabirds (20 species) and 19 shorebirds (1 species).

Seabird species are listed in order of the largest number cared for to the lowest:

Wedge-tailed Shearwater (*Ardenna pacifica*) (ʻUaʻu kani) - 1,165. The majority of these shearwaters were downed fledglings due to light pollution or impact with structures
Blue-billed White-Tern (*Gygis candida*) (Manu o Kū) - 126
Most of the terns are orphaned chicks that are raised and soft-released
Bulwer's Petrel (*Bulweria bulwerii*) (ʻOu) - 17
Sooty Tern (*Sterna fuscata*) (ʻEwa ʻewa) - 12
Red-footed Booby (*Sula sula*) (ʻĀ) - 11
Hawaiian Petrel (*Pterodroma sandwichensis*) (ʻUaʻu) - 10
White-tailed Tropicbird (*Phaethon lepturus*) (Koaʻe kea) - 10
Brown Noddy (*Anous stolidus*) (Noio kōhā) - 9
Leachʻs Storm-Petrel (*Oceanodroma leucorhoa leucorhoa*) -7
Great Frigatebird (*Fregata minor palmerstoni*) (ʻIwa) - 5
Red-tailed Tropicbird (*Phaeithon rubricauda*) (Koaʻe ʻula) - 5
Christmas Shearwater (*Puffinus nativitatis*) (ʻAoʻū) - 4
Brown Booby (*Sula leucogaster plotus*) (ʻĀ) - 3
Black Noddy (*Anous minutus melanogenys*) (Noio) - 2
Laysan Albatross (*Phoebastria immutabilis*) (Mōlī) - 2
Sooty Shearwater (*Ardenna grisea*) - 2
Black-winged Petrel (*Pterodroma nigripennis*) - 1
Flesh-footed Shearwater (*Ardenna carneipes*) - 1
Mottled Petrel (*Pterodroma inexpectata*) - 1

Newell's Shearwater (*Puffinus newelli*) ('A'o) - 1
Shorebirds:
Pacific Golden-Plover (*Pluvialis fulva*) (Kōlea) – 19

NON-PACIFIC UNITED STATES

Compiled by Aurora Kuczek

Project Wildlife and Offshore Wind (WOW) Northern Gannet Tracking

Collaborators
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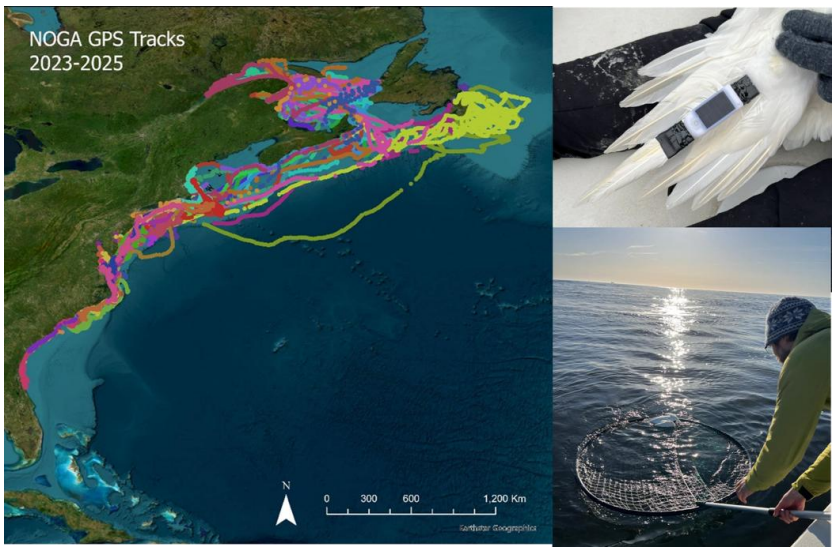
Project Description

As part of the larger Project Wildlife and Offshore Wind (WOW) with funding by the Department of Energy and Bureau of Ocean Energy Management under DOE Award No. 10287, BRI deployed n=60 GPS-GSM tags (Ornitela Ornitrack OT20D/OT30D) with built in depth recorders on non-breeding Northern Gannets (*Morus bassanus*) in Nov-Dec 2023 and Jan-April 2025 off the coast of Massachusetts, Rhode Island, and New York to understand fine-scale movement patterns and behavior in relation to the first commercial-scale offshore wind development in the region. We used both night spotlighting and diurnal hoop-netting techniques, and attached tags via tail-mount with a combination of tesa tape, cable ties, and UV glue. Of note, early winter deployments were challenging due to birds still molting tail feathers. Tags lasted an average of 40 days (range 1-112) for a total of 1,912 tracking days across individuals. Data analysis is underway using hidden Markov models to distinguish between behaviors (resting, foraging, transit), and integrated step selection functions to understand habitat use in relation to environmental conditions and anthropogenic stressors (presence of turbines and vessels) during and following construction of offshore wind energy facilities. Additional efforts include modeling flight heights to better understand collision risk, analysis of dive behavior, and diet analysis using fecal eDNA and stable isotope analysis of blood and feathers.



NORTHERN CALIFORNIA

Compiled by Aurora Kuczek

Alcatraz Island Seabird Breeding

Julie Thayer/Farallon Institute & Morgan Barnes/National Park Service

We have monitored Alcatraz seabird demographics since the island was colonized by Brandt's Cormorants (*Urile pencillatus*) in the early 1990s. Disturbance to wildlife is a concern because Alcatraz is the most heavily visited tourist destination in Northern California.

Inter-annual variability in Brandt's Cormorant population and productivity levels on Alcatraz is increasing. After a record number of Brandt's Cormorants in 2023 (almost 10,000 birds, representing a significant contribution to the regional meta-population), breeding numbers and success were very depressed in 2024. Environmental conditions in 2024 included heavy and recurring late rains, warm ocean temperatures, and lower abundance of key prey species as indexed by trawl surveys.

Brandt's Cormorants again broke their own breeding population record on Alcatraz in 2025 with over 15,000 birds and very high productivity. However, preliminary 2026 monitoring has revealed only a few breeding birds, all of whom have failed so far. Roosting and foraging cormorants are still present, and wind conditions have been conducive to upwelling, but sea surface temperatures remain 3°C+ above average. A tropical Brown Booby (*Sula leucogaster*)was observed foraging in West Central San Francisco Bay with cormorants, gulls, terns, loons, and murres on 7 April 2026.

The Western Gull (*Larus occidentalis*) population has remained stable although slightly lower in 2025 than previous years, likely due to the increase in cormorant nesting. Gull productivity dipped to the lower standard deviation of the long-term time series in 2024, but was above-average in 2025, reflecting the increasing variability pattern.

Pigeon Guillemot (*Cepphus columba*) numbers continue to increase, and nest modules are being deployed in partnership with Oikonos to provide additional habitat. Black Oystercatchers (*Haematopus bachmani*) are stable at low numbers, but with no fledging success. The first pair of California Gulls (*Larus californicus*) since 2017 nested in 2025 and fledged all three chicks. Since 2014, Pelagic Cormorants (*Urile pelagicus*) no longer breed on Alcatraz Island, likely precipitated by poor prey conditions during the marine heat wave that year, coupled with increased human disturbance.

Thus far in 2026, we have observed roughly 30 dead Brandt's Cormorants and 20 dead Western Gulls on Alcatraz, although none have tested positive for Highly Pathogenic Avian Influenza (HPAI; one gull tested positive in 2024). Peregrine Falcons (*Falco peregrinus*), predators of seabirds breeding on Alcatraz since 2020, disappeared in early 2025 likely due to HPAI.

California at-sea surveys

Sarah Ann Thompson/Farallon Institute

Farallon Institute continues to monitor seabirds at-sea in 2026 with a ship-board observer on four surveys: the winter, spring, and summer CalCOFI surveys, and the NOAA Rockfish Recruitment and Ecosystem Assessment Survey (RREAS) in April-May. The CalCOFI surveys primarily cover the Southern California Bight, but also may transit offshore of Central California, The RREAS surveys a core area off of Central California, but may also extend north to the Oregon border and south into the Southern California Bight. These seabird surveys constitute long-term monitoring: this is the 40th year for the seabird time series on seasonal CalCOFI surveys (beginning in 1987) and seabirds have been observed on the RREAS since 1996. Data (except the most recent three years) are publicly available at https://oceanview.pfeg.noaa.gov

/erddap/index.html. One observational highlight for 2026 was the sighting of a Waved Albatross (*Phoebastria irrorata*) on the winter CalCOFI survey offshore from Piedras Blancas, CA, on 23 January 2026 by seabird observer Tammy Russell. Waved Albatross are native to Ecuador. The bird seen on 23 January 2026 was determined from photographs to be the same bird previously observed in October 2025 by participants on a pelagic seabird cruise off of Bodega Bay, CA. A manuscript detailing the January 2026 observation has been submitted to Marine Ornithology.

Laney White, Gavin Haight, Laurie Hall, and **Susan De La Cruz** (USGS WERC) have initiated work to deploy digital aerial surveys for wintering sea duck abundance within San Francisco Bay and the California coast in collaboration with Washington State Department of Fish and Wildlife and Conservation Metrics, Inc. They are building a model to aid in automated sea duck identification and quantification.

Beach Watch beached bird summary 2025

Kirsten Lindquist and Jan Roletto

2025 marked the 31st year of Beach Watch, the coastal community science monitoring program of **Greater Farallones and Cordell Bank National Marine Sanctuaries** and **Greater Farallones Association**. In 2025, Beach Watch monitored 60 survey sites over 5 counties in North Central California, from Mendocino through San Mateo Counties. 100% of typical annual surveys were completed. Volunteers and staff collected data on shoreline birds, mammals, human activities, entanglement and oil pollution, and status of streams and lagoons.

In 2025, seabird deposition was higher than our long-term mean deposition rates (i.e., 1993–2024 baseline deposition rates). We observed higher rates of deposition for three species of seabirds: Brown Pelican (*Pelecanus occidentalis*), Western Gull (*Larus occidentalis*), and Brandt's Cormorant (*Urile penicillatus*). Brown Pelicans had a 100% increase in mean annual deposition rate (from a baseline of 0.022 birds/km to 0.040 birds/km in 2025); approximately 30% were adults, 42% immature (first and second year), and 28% unknown age. Western Gulls had a 32% increase in mean annual deposition rate (from a baseline of 0.114 birds/km to 0.151 birds/km in 2025); approximately 30% were adults, 56% immature (first and second year, 14% immature (third and fourth year) and 1% unknown age. Brandt's Cormorants had a 12% increase in mean annual deposition rate (from baseline of 0.090 birds/km to 0.101 birds/km, in 2025). Approximately 50% were adults, 27% immature (first and second year), and 23% unknown age.

Two species with high baseline deposition had average or lower deposition in 2025; Common Murre (*Uria aalge*) (long term mean baseline 0.369 and 0.221 in 2025) and Northern Fulmar (*Fulmarus glacialis*) (long term mean 0.154 birds/km and 0.124 in 2025).

Beach Watch data are publicly accessible through the GFA data portal: https://bwonline.beachwat.ch/BeachWatchData.php. For more information on data sharing, accessing to raw data, details of surveys for beach-closures, stream and lagoon status, human activities, oil pollution, demographics of beach vertebrates, or relative abundance of beach wrack, please contact Kirsten Lindquist, KLindquist@farallones.org or Jan.Roletto@noaa.gov .

Table 1. Pelagic Cormorant Well Built Nest count summaries and productivity data for 3 colonies in Del Norte County, CA.

	Tolowa Rock (41.75671 N, 124.22144 W)				Hunter Island (41.95423 N, 124.20839 W)				Castle Rock NWR	
Year	WBN	WBN W/C	Tot C	(C/WBN)	WBN	WBN W/C	Tot C	(C/WBN)	Count Date	WBN
2014	25	24	71	2.84	31	29	66	2.13	No data	
2015	17	11	27	1.59	26	23	51	1.96	No data	
2016	12	8	19	1.58	24	12	12	0.5	No data	
2017	3	3	1	0.33	38	31	60	1.58	7-Jul	182
2018	17	15	32	1.88	52	45	107	2.06	No data	
2019	2	2	1	0.5	2	0	0	0	25-Jun	33
2020	16	15	33	2.06	15	14	No data		27-Jul	227
2021	24	21	47	1.96	25	21	37	1.45	26-Jun	245
2022	11	9	10	0.91	17	14	23	1.35	No data	
2023	10	5	13	1.3	45	33	79	1.75	9-Jul	188
2024	20	13	25	1.25	36	29	45	1.25	No data	
2025	21	20	55	2.62	31	28	76	2.4	26-Jun	233
Means	14.83	12.17	27.8	1.6	28.5	23.3	50.5	1.5		184.7

WBN: Well Built Nest, adult sit tight (ie: eggs, a productive nest)
WBN W/C: Nests that have visible chicks
Tot C: sum of brood sizes for followed nests

Scott Moorhouse (High Arctic Gull Research Group) is continuing studies of Iceland (*Larus glaucoides*) and other large *Larus* gulls. In the summer of 2025, Moorhouse completed additional work on the ecology and behavior of breeding Iceland Gulls and other breeding species in southwestern Greenland, including Lesser Black-Backed (*Larus fuscus*), Great Black-Backed (*Larus marinus*), Glaucous (*Larus hyperboreus*), and European Herring Gulls (*Larus argentatus*). A primary objective of this work was to compare the ecology and behavior of breeding Iceland Gulls (subspecies *glaucoides*) in their core breeding range in southwestern Greenland with the other sympatric species, focusing on colony locations and characteristics, habitat use, feeding behavior, and food use. The results from this analysis for *glaucoides* were also compared to the results obtained for breeding Iceland Gulls (subspecies *kumlieni*) and sympatric *Larus* gull species in southwestern Baffin Island, Nunavut, Canada in Moorhouse's previous work. An additional objective was to address the question of how breeding populations of Lesser Black-Backed and Great Black-Backed Gulls have expanded in Greenland in terms of niche space. The colony information collected in the study was also used to update the Greenland Seabird Colony Register. This study is a continuation of Moorhouse's previous work on Iceland Gulls (Moorhouse, S.S. 2021. *The feeding ecology and behavior of breeding Iceland Gulls* Larus glaucoides kumlieni *and comparisons with sympatric large* Larus *gulls on southwestern Baffin Island, Canada*. Marine Ornithology 49: 83-90 and Moorhouse, S.S. 2024. *The distribution, abundance, and habitat use of wintering Iceland Gulls* Larus glaucoides thayeri *in Northern California and comparisons with other* Larus *gulls*. Marine Ornithology 52: 209-223). A paper on the Greenland work was submitted to *Marine Ornithology* in April 2026.

Craig Strong of Crescent Coastal Research recently retired from the lead field data collector role for the Northwest Forest Plan's Marbled Murrelet (*Brachyramphus marmoratus*) at-sea abundance monitoring program in Oregon and northern California. He continues to monitor seabird nesting chronology and success from shore and by boat in Del Norte County, California.

Castle Rock notes: Bald Eagle (*Haliaeetus leucocephalus*) have been preying on adult Common Murres (*Uria aalge*) every season at Castle Rock National Wildlife Refuge since Spring 2023. Predation and disturbance appear to decrease by July. Eagles prefer certain locations, and murre subcolonies in those areas have zero to reduced productivity and a delayed season relative to the rest of the island. Murre productivity data based on age ratios at sea in Del Norte County show 2025 to be a good year

(Hatch Year to After Hatch Year ratio: 0.5154 compared to a 25 year mean of 0.242, Std. Dev. 0.2347).

Brandt's Cormorants (*Phalacrocorax penicillatus*) have expanded their colonies into new areas in 2024 and 2025 (USFWS has the photo count data), and had high success. Pelagic Cormorant (*P. pelagicus*) numbers and productivity data are in *Table 1*. 2025 stood out as a very good year for Pelagics at the three colonies studied.

CENTRAL CALIFORINIA

Compiled by Aurora Kuczek

Laney White, Emma Kelsey, Gavin Haight, and **Josh Adams** (USGS Western Ecological Research Center [USGS WERC]), with observer support from **Alex Rinkert** (California State Parks), continued long-term (1999–present) at-sea Marbled Murrelet (*Brachyramphus marmoratus*) surveys in Conservation Zone 6 in central California to estimate murrelet abundance reproductive output in 2026. This long-term monitoring project was previously funded by the Luckenbach Oil Spill Trustee Council and will be funded through 2027 by California State Parks. The annual report is available upon request, and the data will be published every five years: https://www.usgs.gov/centers/werc/science/marbled-murrelet-surveys-central-california-coast

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SOUTHERN CALIFORINIA

Compiled by Aurora Kuczek

Gavin Haight, Josh Adams, **Laney White**, and **Emma Kelsey** (USGS WERC), in collaboration with **David Pereksta** (BOEM), expanded the Motus Wildlife Tracking System with a focus on increasing tracking capacity for seabirds and bats off southern-central California and in the Southern California Bight. Twenty-two new stations have been added to the network. The team deployed Motus tags on four species of seabirds in the Channel Islands in the spring of 2025: Ashy Storm-petrels (*Oceanodroma homochroa*), Black Storm-Petrels (*Hydrobates melania)*, Cassin's Auklets (*Ptychoramphus aleuticus*), and Western Gulls (*Larus occidentalis*). The Western Gulls were co-tagged with GPS-GSM tags. The project is ongoing. https://www.usgs.gov/centers/werc/science/birds-bats-and-beyond-networked-wildlife-tracking-southern-california-bight

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Deborah Jaques

I am currently focused on testing an electronic leg band designed by Cellular Tracking Technologies and the Motus Wildlife Tracking System to monitor survival and movements of California Brown Pelicans (*Pelecanus occidentalis californicus*). Primary co-investigators on this project are T.M. Russell and A.J. DuVall. As of May 2026, we have tagged 44 individuals and established one Motus sensor station. Our tagged sample includes both rehabilitated birds and prefledged chicks from colonies in the U.S. and Mexico, through multiple collaborative partnerships with wildlife rehabilitation centers and seabird biologists in California and Mexico. The work is primarily funded by the University of California at Davis Oiled Wildlife Care Network, whose aim is to explore innovative technologies to track the success of wildlife rehabilitation efforts following oil spills. Preliminary results from automated tracking, coupled with field observations of marked birds at communal roosts, indicate that these methods provide a non-invasive, long-term means of tracking the species and will yield new insights into Brown Pelican behavioral ecology and responses to large-scale oceanographic variation.

WASHINGTON AND OREGON

Compiled by Aurora Kuczek

Gavin Haight and Josh Adams (USGS WERC) collected aerial imagery of ten islands in the Oregon Coast National Wildlife Refuge Complex. Structure from Motion was used to generate digital surface models (~0.5 meter pixel dimension) and orthomosaics (0.15 meter pixel dimension) for each island. These products serve as base GIS layers for quantifying landscape features, current erosional surfaces, habitat classifications, and burrowing seabird nest site locations. This work was conducted in conjunction with on-the-ground assessments of the burrow abundance of Leach's Storm-Petrels (LHSP; *Hydrobates leucorhous*) on 11 islands in the Refuge by **Laney White, Emma Kelsey, Gavin Haight**, and **Josh Adams** (USGS WERC) with support from USFWS - OCNWRC. The report is forthcoming.
https://www.usgs.gov/data/aerial-imagery-and-structure-motion-derived-data-products-aerial-digital-photographic-survey

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Roberta Swift, USFWS; Alex Cook, USFWS; Jenn Urmston, USFWS; K. Luscher, Audubon Seabird Institute

The Trilateral Bycatch Working Group and the Atlantic Marine Bird Cooperative convened a virtual Seabird Bycatch Reduction Strategies Workshop on February 11–12, 2026. The workshop brought together over 140 participants from industry, government, academia, and NGOs across the Pacific, Atlantic, Indian, and Arctic oceans to share knowledge on bycatch mitigation for longline, trawl, and gillnet fisheries. Discussions identified priority actions and project ideas to advance on-the-water implementation, emphasizing fisher-led solutions, voluntary and bottom-up approaches, region-specific research, improved monitoring, and cross-jurisdictional coordination.

Tufted Puffin decoys were placed on Hunters Island near Gold Beach OR, on May 6, 2026 as part of a collaborative social attraction project by Oregon Coast National Wildlife Refuge Complex, National Audubon Society Seabird Institute, Oregon State University Seabird Ornithology Lab, and Friends of Haystack Rock.

Tufted Puffin (*Fratercula cirrhata*) breeding colony surveys were conducted in summer 2025 at several sites in Oregon including Haystack Rock, Cannon Beach and Bandon. These collaborative surveys by U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Audubon Seabird Institute, Friends of Haystack Rock, and Haystack Rock Awareness Program, used community scientists to continue and expand surveys of this iconic, but declining, species.

Work was conducted on several islands within the Oregon Coast National Wildlife Refuge Complex in collaboration with USFWS and partners:

- Oregon State University (OSU) continues to monitor for mammalian predator abundance and distribution on 4 large offshore refuge islands in the OCNWR on the Southern Coast of Oregon. They have documented mink and river otter consistently on many islands.
- OSU deployed GPS tags on 5 Rhinoceros Auklets (*Cerorhinca monocerata*) and 18 Leach's Storm-Petrels (*Hydrobates leucorhous*) in 2025. These tags tracked birds during the breeding season, documenting foraging trip distance and duration.
- USGS continued to analyze burrow nesting bird survey data collected in 2024 and create high resolution ortho imagery of major seabird islands along the coast of Oregon, mapping habitat features at a high resolution scale.

- Carina Kusaka at OSU, and USGS collected eDNA samples from Rhinoceros Auklet burrows on Hunters Island (Gold Beach, OR) to test if eDNA sampling can be used to determine burrow occupancy when burrows are too long to scope or grub.

Long-term seabird monitoring by Washington Maritime National Wildlife Refuge Complex continued in summer 2025 at Smith Island, the San Juan Islands, and the outer coast islands; including Tufted Puffin (TUPU) surveys at Smith Island, cormorant surveys in the San Juans, and broader wildlife surveys focused on nesting species such as Black Oystercatchers (*Haematopus bachmani*), Pigeon Guillemots (*Cepphus columba*), and gulls.

In the San Juan Islands in 2025, WMNWRC refuge staff prioritized monitoring and protection of Black Oystercatchers (BLOY), as more than 80% of the local breeding population nests on refuge islands.

At Smith Island, WMNWR staff continued monitoring a suspected Horned Puffin (*Fratercula corniculata*) nesting area. Although bluff erosion impacted the apparent burrow site, recent sightings of a Horned Puffin near the island provide hope that nesting activity may continue or reestablish in the future.

Salish Sea State of the Birds

Anna Vallery

Audubon Washington (AWA) is leading the development of the Salish Sea State of the Birds, a comprehensive assessment of coastal and marine bird populations across the Salish Sea. Anna Vallery (Coastal Program Manager) is coordinating the project, with Trina Bayard (Director of Bird Conservation), serving as PI. The Advisory Committee includes representatives from Washington Department of Fish and Wildlife, Birds Canada, the University of Washington, USGS, Pacific Birds Habitat Joint Venture, COASST, and Puget Sound Bird Observatory.

Without accessible, synthesized information on coastal bird populations, it is difficult to prioritize and coordinate conservation actions in the Salish Sea. Pressures on coastal ecosystems have intensified, and many of the 170+ coastal bird species that depend on the Salish Sea are facing alarming declines. Species population trends are mixed: research suggests piscivores (Vilchis et al. 2014) and benthivores (Crewe et al. 2012) are at risk, while other findings indicate a more complicated picture (Puget Sound Partnership 2024).

The report will synthesize data from both sides of the U.S.--Canada border to describe the status, trends, and challenges facing approximately 90 coastal and marine bird species. Species are organized within a foraging guild framework (Herbivore, Benthivore, Piscivore, Planktivore, etc.) that can connect bird trends directly to habitat and conservation actions. The report aims to summarize the status and trends of birds in the Salish Sea, highlight priority conservation actions, identify research and monitoring gaps limiting effective conservation, and build a shared foundation to inform conservation and policy action. Beyond serving as a scientific reference, the report will anchor an outreach campaign and strengthen Audubon's advocacy for habitat protections, restoration priorities, and sustainable policies.

The Salish Sea State of the Birds will be released in late 2026.

For more information, please contact Anna Vallery at anna.vallery@audubon.org.

SEYCHELLES

Compiled by Aurora Kuczek

Joanna Smith (The Nature Conservancy, Nature United Canada) reports that the Seychelles Marine Spatial Plan (SMSP) was signed into law as of March 2025. Implementation for the 13 new, legally-designated marine protected areas and 1.35 million km^2 in new marine zones in the Western Indian Ocean has begun. A new SMSP Agency – the governance mechanism to coordinate implementation –received Parliamentary approval in March 2026, and the Bill was gazetted in April 2026. The SMSP includes 441,456 km^2 in new marine protections, with the objective to protect seabirds, cetaceans, and numerous marine species and ecosystems within Seychelles' waters. The MPA system includes a large-scale MPA greater than 200K km^2 surrounding the UNESCO World Heritage Site at Aldabra Atoll. The SMSP goals were to expand marine protections, address climate change adaptation, and advance the sustainable blue economy. The marine spatial planning process started in 2014 and was officially completed in a ceremony in June 2025. The planning process navigated three national elections and the global pandemic and consistently engaged more than 390 stakeholders from 12 marine sectors and civil society. The Seychelles' archipelagoes and vast ocean are regionally and internationally important for 18 breeding seabird species (Seychelles Bird Records Committee) including Sooty Terns (*Onychoprion fuscatus*) and three species of Booby (*Sula* spp.). More than 100 data layers informed the planning, including research by Dr. Chris Feare, Dr. Rachel Bristol, and Christine Larose (WildWings Bird Management) from a satellite tagging project in Seychelles. The project's results supported stakeholder discussions and provided scientific data to identify at-sea distribution patterns of Sooty Terns. A new MPA boundary was identified from these conversations and legally established in March 2020 – Bird Island (Ile Aux Vaches) Marine National Park. The Seychelles MSP is an example of how seabird tracking studies can inform evidence-based spatial planning and expand marine protections for ocean ecosystems. This case study can be found in Chapter 18 in the Conservation of Marine Birds, edited by Lindsay Young and Eric Vanderwerf. For more information about the Seychelles MSP please visit the website: www.seymsp.com.