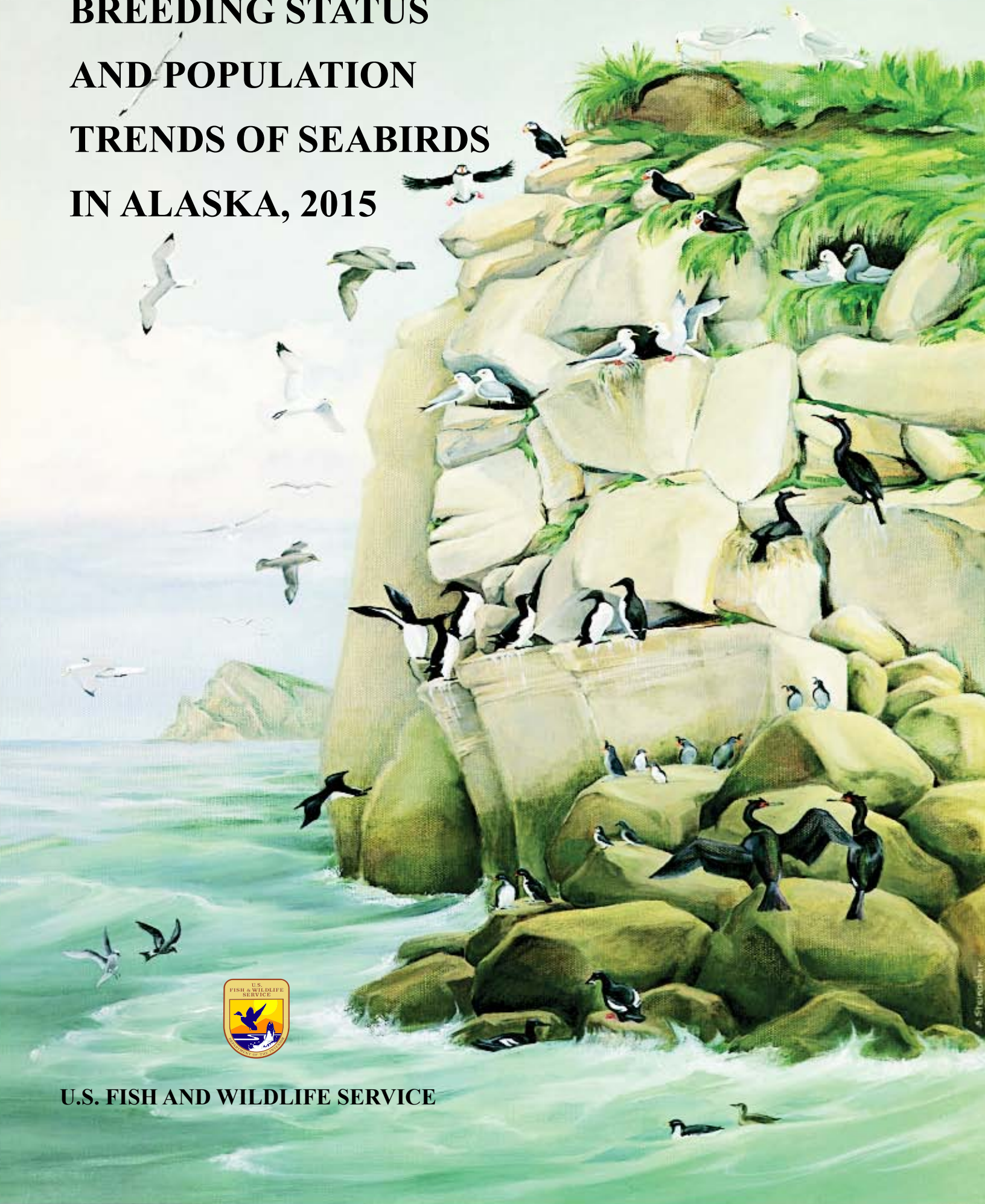


**BREEDING STATUS
AND POPULATION
TRENDS OF SEABIRDS
IN ALASKA, 2015**



U.S. FISH AND WILDLIFE SERVICE

BREEDING STATUS AND POPULATION TRENDS OF SEABIRDS IN ALASKA, 2015

Compiled By:

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The findings and conclusions in this report are those of the author(s) and do not necessarily represent the views of the U.S. Fish and Wildlife Service or the Department of the Interior.

Executive Summary

Data are collected annually for selected species of marine birds at breeding colonies on the far-flung Alaska Maritime National Wildlife Refuge (NWR), and at other areas in Alaska, to monitor the condition of the marine ecosystem and to evaluate the conservation status of species under the trust of the U. S. Fish and Wildlife Service. The strategy for colony monitoring includes estimating timing of nesting events, rates of reproductive success, and population trends of representative species of various foraging guilds (e.g., offshore diving fish-feeders, diving plankton-feeders) at geographically dispersed breeding sites. This information enables managers to better understand ecosystem processes and respond appropriately to resource issues. It also provides a basis for researchers to test hypotheses about ecosystem change. The value of the marine bird monitoring program is enhanced by having sufficiently long time-series to describe patterns for these long-lived species.

During the summer of 2015, seabird data were gathered at seven annual monitoring sites on the Alaska Maritime NWR. The species monitored were northern fulmars, storm-petrels, cormorants, murre, ancient murrelets, auklets, puffins, kittiwakes, and glaucous-winged gulls. In addition, data were gathered at other locations which are visited intermittently, or were part of a research or monitoring program outside the refuge.

Timing of breeding (Table A)

- Statewide, in 2015 mean hatch date was early in 31% of the species, average in 50%, and late in 19%.
- Murre and black-legged kittiwake eggs failed to hatch on study plots at Chowiet Island, as did the eggs of red-legged kittiwakes at St. Paul Island.

Table A. Regional and statewide seabird breeding chronology^a compared to averages for past years within regions and the state of Alaska as a whole. Only regions for which there were data from 2015 are included.

Region	FTSP ^b	LHSP	RFCO	COMU	TBMU	ANMU	PAAU	LEAU	WHAU	CRAU	RHAU	HOPU	TUPU	BLKI	RLKI	GWGU
SE Bering	L	A	E	L	A	A		E				E	L	L	A	E
SW Bering					A		E	A	E	A		L	L	L		E
N. GOA ^c							A					A	A			E
Southeast	E	E		L	L						E					L
Alaska	A	E	E	L	A	A	A	E	E	A	E	A	L	L	A	A

^aCodes:

“E” and red cell color indicate hatching chronology was > 3 days earlier than the average for sites in this region.

“A” and yellow cell color indicate hatching chronology was within 3 days of average.

“L” and green cell color indicate hatching chronology was > 3 days later than the average for sites in this region.

^bFTSP=fork-tailed storm-petrel, LHSP=Leach’s storm-petrel, RFCO=red-faced cormorant, COMU=common murre, TBMU=thick-billed murre, ANMU=ancient murrelet, PAAU=parakeet auklet, LEAU=least auklet, WHAU=whiskered auklet, CRAU=crested auklet, RHAU=rhinoceros auklet, HOPU=horned puffin, TUPU=tufted puffin, BLKI=black-legged kittiwake, RLKI=red-legged kittiwake, GWGU=glaucous-winged gull.

^cGOA=Gulf of Alaska.

Productivity (Table B)

- Statewide, productivity was above average for only one species (glaucous-winged gull).
- In 2015, kittiwakes exhibited widespread breeding failures, as did many other species breeding on Chowiet Island.
- Anecdotal evidence suggests that common murre failed to breed at some colonies in the Gulf of Alaska (e. g., E. Amatuli and Gull islands), in 2015.
- Southeast Alaska was the only region where productivity was above average, overall, in 2015.

Table B. Regional and statewide seabird breeding productivity levels^a compared to averages for past years within regions and the state of Alaska as a whole. Only regions for which there were data from 2015 are included.

Region	FTSP ^b	LHSP	RFCO	PECO	COMU	TBMU	ANMU	PAAU	LEAU	WHAU	CRAU	RHAU	HOPU	TUPU	BLKI	RLKI	GWGU
SE Bering	A	A	A	A	A	L	A		L				A	L	L	L	H
SW Bering	A	A			L	A		A	L	A	A		A	L	L	L	H
N. GOA ^c			L	L	L	L		L				A	L	A	L		H
Southeast	A	A		L	H	H						H		H			A
Alaska	A	A	L	L	A	A	A	A	L	A	A	A	L	L	L	L	H

^aCodes:

“L” and red cell color indicate productivity was > 20% below the average for the region.

“A” and yellow cell color indicate productivity was within 20% of average.

“H” and green cell color indicate productivity was > 20% above the average for the region.

^bFTSP=fork-tailed storm-petrel, LHSP=Leach’s storm-petrel, RFCO=red-faced cormorant, PECO=pelagic cormorant, COMU=common murre, TBMU=thick-billed murre, ANMU=ancient murrelet, PAAU=parakeet auklet, LEAU=least auklet, WHAU=whiskered auklet, CRAU=crested auklet, RHAU=rhinoceros auklet, HOPU=horned puffin, TUPU=tufted puffin, BLKI=black-legged kittiwake, RLKI=red-legged kittiwake, GWGU=glaucous-winged gull.

^cGOA=Gulf of Alaska.

Population trends during 2006-2015 (Table C)

- Statewide, 27% of species showed increasing population trends, 60% were stable and 13% declined between 2006 and 2015.
- Near complete abandonment of the Chowiet Island colony by murres and black-legged kittiwakes in 2015 drove the declining recent trends exhibited for these species there.
- The mean 2015 murre count on study plots at Chowiet Island was roughly 3% of the long-term average; from more than 3300 birds on average down to an average of 94 birds on the plots in 2015.

Table C. Regional and statewide seabird population trends^a between 2006 and 2015 within regions and the state of Alaska as a whole. Only sites for which there were data from at least two years (at least 5 years apart) within the target decade are included.

Region ^b	NOFU ^c	FTSP	STPE	RFCO	PECO	COMU	TBMU	UNMU	PIGU	LEAU	RHAU	TUPU	BLKI	RLKI	GWGU
N. BS/CS								h					h		
SE Bering	h		1	i	1	1	1	i		h		1	1	h	i
SW Bering								h					h	h	
N. GOA	1	1						i	1		1	i	1		1
Southeast			1		h			1	1		h	1			h
Alaska	h	1	1	i	h	1	1	i	1	h	1	1	1	h	1

^aCodes:

i and red cell color indicate a negative population trend of ≥3% per annum for this site or region.

1 and yellow cell color indicate no population trend.

h and green cell color indicate a positive population trend of ≥3% per annum for this site or region.

^bBS=Bering Sea, CS=Chukchi Sea, GOA=Gulf of Alaska.

^cNOFU=northern fulmar, FTSP=fork-tailed storm-petrel, STPE=unspecified storm-petrel, RFCO=red-faced cormorant, PECO=pelagic cormorant, COMU=common murre, TBMU=thick-billed murre, UNMU=unspecified murre, PIGU=pigeon guillemot, LEAU=least auklet, RHAU=rhinoceros auklet, TUPU=tufted puffin, BLKI=black-legged kittiwake, RLKI=red-legged kittiwake, GWGU=glaucous-winged gull.

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