



Aleutian-Pribilof Islands and Kodiak Archipelago 2020 Bird and Egg Harvest Survey — DRAFT SUMMARY —

OBJECTIVE

Harvest of emperor goose was re-opened in Alaska in 2017 after a 30-year closure, but emperor goose numbers available for a sustainable harvest remain limited. Harvest data are needed to document uses of resources, assess effects of harvest on populations, solve allocation issues, and support sustainable harvest opportunities. The objective of this study was to complement bird harvest data within the emperor goose distribution range in Alaska, since data for the Kodiak Archipelago and Aleutian-Pribilof Islands regions were scarce.



METHODS

We surveyed households to quantify the harvest of birds and eggs in nine communities and census-designated places in the Kodiak Archipelago (Larsen Bay, Port Lions, Kodiak City, Womens Bay, and Mill Bay and Balance of Kodiak Island Borough) and Aleutian-Pribilof Islands (Adak, Akutan, Sand Point, and Saint Paul) (Table 1). Participation of communities and households in the survey was voluntary. Community consent was granted by tribal councils and local organizations. Household harvest data were anonymous and confidential.

Data were collected in March–June 2021 and represented the regulatory period 2 April 2020–9 March 2021. Seasons were considered as spring (2 April–30 June), summer (1 July–31 August), fall (1 September–31 October), and winter (1 November–9 March). In each community, contracted local research assistants distributed surveys to households and assisted with communication and outreach. Households completed surveys on their own and returned completed surveys using a postage-paid envelope. Project staff complemented sample sizes with phone interviews. A total of 570 surveys were completed in all surveyed communities: 76% were returned by mail and 24% completed by phone (Table 1).

Data from surveyed households were extrapolated to estimate harvest at the community and region levels. Data for Akhiok, Old Harbor, and Unalaska collected by other projects conducted by the ADF&G Division of Subsistence complemented the dataset.

RESULTS

The total bird harvest in the Aleutian-Pribilof Islands region in 2020 was 2,858 birds (Table 2). The seasonal distribution of harvests was 33% in spring-summer and 67% in fall-winter. The total egg harvest was 1,264 eggs. Aleutian-Pribilof Islands residents reported harvesting 52 emperor geese leading to an estimated (extrapolated) harvest of 210 geese.

The total bird harvest in the Kodiak Archipelago region in 2020 was 14,327 birds (Table 3). The seasonal distribution of harvests was 28% in spring-summer and 72% in fall-winter. The total egg harvest was 3,718 eggs. Residents of the Kodiak Archipelago reported harvesting 26 emperor geese leading to an estimated harvest of 244 geese.

Table 1. Demographic and sampling information for communities in the Aleutian-Pribilof Islands and Kodiak Archipelago regions.

Regions and communities	Population ^{a§}	American Indian and Alaska Native ^{a§*}	Total households	Surveys completed	Sampling rate
Aleutian-Pribilof Islands					
Adak City [♦]	114	47%	38 ^b	25	66%
Akutan City [♦]	113	81%	27 ^b	22	81%
Atka City	53	98%	14 ^a	—	—
Cold Bay City	42	60%	21 ^a	—	—
False Pass City	59	80%	13 ^a	—	—
King Cove City	427	90%	165 ^a	—	—
Nelson Lagoon CDP	41	93%	20 ^a	—	—
Nikolski CDP	39	72%	22 ^a	—	—
St. George City	67	94%	26 ^a	—	—
Saint Paul City [♦]	376	100%	113 ^b	28	25%
Sand Point City [♦]	531	71%	201 ^b	86	43%
Unalaska City [◊]	1,677	22%	998 ^c	114 ^c	11% ^c
Kodiak Archipelago					
Akhiok City [◊]	63	89%	14 ^d	11 ^d	79%
Karluk CDP	27	96%	14 ^a	—	—
Larsen Bay City [♦]	34	82%	17 ^b	16	94%
Old Harbor City [◊]	216	86%	67 ^d	30 ^d	45% ^d
Ouzinkie City	109	77%	45 ^a	—	—
Port Lions City [♦]	170	65%	65 ^b	35	54%
Aleneva CDP	5	0%	2 ^a	—	—
Chiniak CDP	61	36%	22 ^a	—	—
Kodiak City [♦]	5,482	16%	1,403 ^e	222	15%
Kodiak Station CDP	1,367	5%	387 ^e	—	—
Womens Bay CDP [♦]	743	19%	281 ^b	58	21%
Mill Bay CDP and Balance of Kodiak Island Borough [♦]	4,385	22%	1,074 ^{a,e}	78	6%

Source: (a) U.S. Census Bureau (2021); (b) this study; (c) Keating et al. (2020); (d) Sill et al. (2021); (e) Keating et al. (In prep). §: "Population" and "American Indian and Alaska Native" excluded population in group quarters. *: Race alone or in combination. ♦: Communities surveyed in this study. ◊: Additional 2018 (Sill et al. 2021) and 2020 (Keating et al. In prep) data used in region harvest estimates.

Naves LC and Mengak LF (2023) Bird and egg harvest on the Aleutian-Pribilof Islands and the Kodiak Archipelago, 2020—Draft Report. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 493, Anchorage. For more information: 907-267-2302, lilliana.naves@alaska.gov.

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Table 2. Estimated bird and egg harvest, Aleutian-Pribilof Islands region, 2020. CIP: Confidence interval as percentage of the estimated yearly bird harvest. This table lists species for which harvest was larger than zero.

Species	Yearly bird reported harvest	Yearly bird estimated harvest	CIP	Spring estimated bird harvest	Summer estimated bird harvest	Fall estimated bird harvest	Winter estimated bird harvest	Yearly egg estimated harvest
American wigeon	5	16	87%	8	0	0	8	0
Gadwall	2	18	185%	0	0	9	9	0
Teal	103	529	71%	78	56	139	256	0
Mallard	43	208	55%	43	0	68	97	0
Northern shoveler	1	9	185%	0	0	9	0	0
Black scoter	12	26	92%	17	0	0	9	0
Surf scoter	6	13	123%	0	0	0	13	0
Bufflehead	4	11	122%	0	0	0	11	0
Goldeneye	13	29	93%	0	0	0	29	0
Canvasback	5	25	133%	0	0	0	25	0
Scaup	1	9	185%	0	0	0	9	0
Common eider	6	19	88%	0	0	8	11	0
King eider	16	109	95%	4	0	0	105	0
Spectacled eider	1	4	126%	0	0	4	0	0
Harlequin duck	88	198	72%	64	0	39	95	0
Long-tailed duck	6	33	113%	28	0	0	5	0
Merganser	15	70	124%	0	0	9	61	0
Duck (unidentified)	3	26	185%	0	0	0	26	0
Black brant	28	114	80%	37	8	0	69	0
Canada goose	2	14	134%	14	0	0	0	0
Emperor goose	52	210	76%	16	0	13	181	0
Black-legged kittiwake	3	21	134%	21	0	0	0	49
Red-legged kittiwake	73	513	81%	141	281	91	0	0
Large gull	0	0		0	0	0	0	659
Murre	0	0		0	0	0	0	197
Puffin	33	72	109%	34	4	34	0	51
Black oystercatcher	0	0		0	0	0	0	309
Wilson's snipe	10	88	185%	35	0	53	0	0
Ptarmigan	92	474	53%	61	0	137	276	0
Total	623	2,858	38%	600	350	612	1,296	1,264

Table 3. Estimated bird and egg harvest, Kodiak Archipelago region, 2020. CIP: Confidence interval as percentage of the estimated yearly bird harvest. This table lists species for which harvest was larger than zero.

Species	Yearly bird reported harvest	Yearly bird estimated harvest	CIP	Spring estimated bird harvest	Summer estimated bird harvest	Fall estimated bird harvest	Winter estimated bird harvest	Yearly egg estimated harvest
American wigeon	13	55	121%	5	0	16	33	0
Gadwall	52	287	127%	10	0	54	224	0
Teal	120	1,053	107%	171	0	269	613	0
Mallard	249	1,361	54%	164	13	449	735	0
Northern pintail	14	90	77%	31	0	0	59	0
Black scoter	242	1,917	129%	825	0	368	724	56
Surf scoter	81	674	107%	334	0	34	306	11
White-winged scoter	58	459	98%	197	0	39	222	17
Bufflehead	122	917	82%	200	3	179	535	34
Goldeneye	310	1,418	53%	216	6	162	1,034	84
Scaup	184	1,569	108%	483	0	84	1,002	0
King eider	1	6	163%	0	0	0	6	0
Harlequin duck	220	2,221	113%	888	37	564	733	0
Long-tailed duck	69	489	73%	193	0	67	230	0
Merganser	24	132	126%	5	0	39	88	30
Black brant	4	21	125%	0	0	15	6	0
Canada goose	47	331	89%	78	0	43	210	0
Emperor goose	26	244	125%	16	0	0	229	0
Tern	0	0		0	0	0	0	636
Black-legged kittiwake	0	0		0	0	0	0	344
Mew gull	0	0		0	0	0	0	371
Large gull	0	0		0	0	0	0	1,990
Puffin	6	44	168%	44	0	0	0	73
Black oystercatcher	0	0		0	0	0	0	71
Other/unknown bird	10	30	133%	0	0	30	0	0
Ptarmigan	126	1,008	90%	57	0	204	747	0
Total	1,978	14,327	83%	3,917	59	2,617	7,734	3,718