Alaska Migratory Bird Co-Management Council (AMBCC)

Kotzebue Bird and Egg Harvest Estimates, 2012 Summary Results

The 2012 birds and eggs harvest survey was conducted in collaboration with the Native Village of Kotzebue and was funded by the U.S. Fish and Wildlife Service, AMBCC Program. Participation in the survey was voluntary at the community and household level. Data collection and analysis were conducted by the Division of Subsistence of the Alaska Department of Fish and Game (ADF&G), with the participation of local survey assistants. The birds and eggs harvest data collection occurred in conjunction with a survey for other subsistence resources (Goddhun and Braem 2014). This summary presents main results of the 2012 birds and eggs survey and also includes results of previous surveys conducted in 1986–2004 in Kotzebue. For a complete report of the 2012 survey, please consult Naves and Braem (2014).

The harvest period covered was April 2012–March 2013. Harvest data was collected in in-person interviews conducted in May 2013. The sample included 216 households randomly selected from a total of 815 households in the community (sampling rate=27%). Among the households contacted, 82% agreed to participate in the survey.

In 2012, 27% of the households surveyed harvested birds, 16% harvested eggs, and 33% harvested birds or eggs.

The birds harvested in the largest numbers were ptarmigan (32% of the total harvest), brant (14%), Canada/cackling geese (14%), pintail (11%), and mallard (5%) (Table 1). The 2012 annual bird harvest estimates (4,437 birds; Table 1) were relatively low compared to 1986–1998 (9,361–13,575 birds) (Figure 1).

In 2012, the eggs harvest was mostly composed of gulls (84% of the total harvest) and geese eggs (7%) (Table 2). The 2012 annual egg harvest estimates (5,896 eggs; Table 2) were similar in species composition and amounts compared to previous years (Figure 2).

In the Kotzebue area[1], the spring arrival of migratory birds usually happens with ESE winds. In 2012, the spring was very cold and with WNW winds; wintery conditions remained until very late. These spring conditions were unfavorable for birds to arrive in large numbers. Once winds shifted to ESE in late May, the spring breakup was very fast and travel conditions quickly deteriorated, allowing a very limited time window to harvest birds. On the other hand, these spring conditions were not bad for egg harvests. The egg laying season was compressed in time because of late arrival of birds. Once people began boating, they found lots of full nests and fresh eggs. In fall, lots of rain likely caused reduced participation in fall bird hunting. Because of (1) effects of weather on the timing of arrival of birds, (2) travel conditions for hunters in spring, (3) timing of egg laying, and (4) hunting conditions in fall, it is likely that bird harvests in 2012 were below the average while egg harvests were not below average.

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1. Information on local weather, ecological, and hunting conditions was provided by Alex Whiting, Environmental Specialist for the Native Village of Kotzebue.

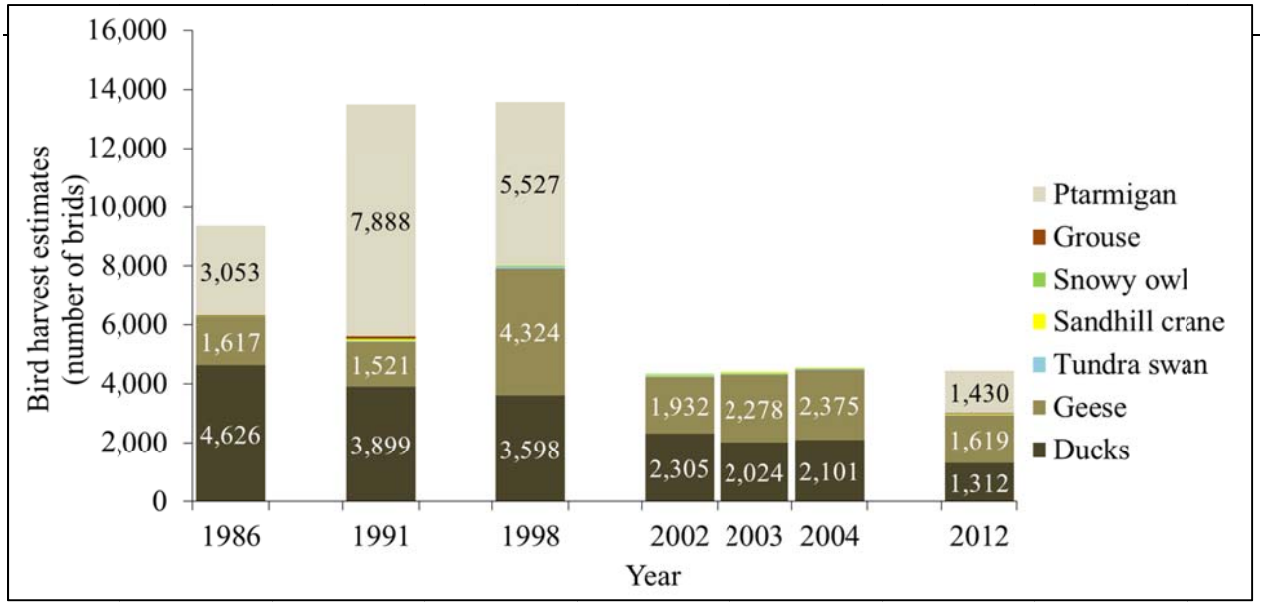

Figure 1. Kotzebue bird harvest estimates 1986–2012.

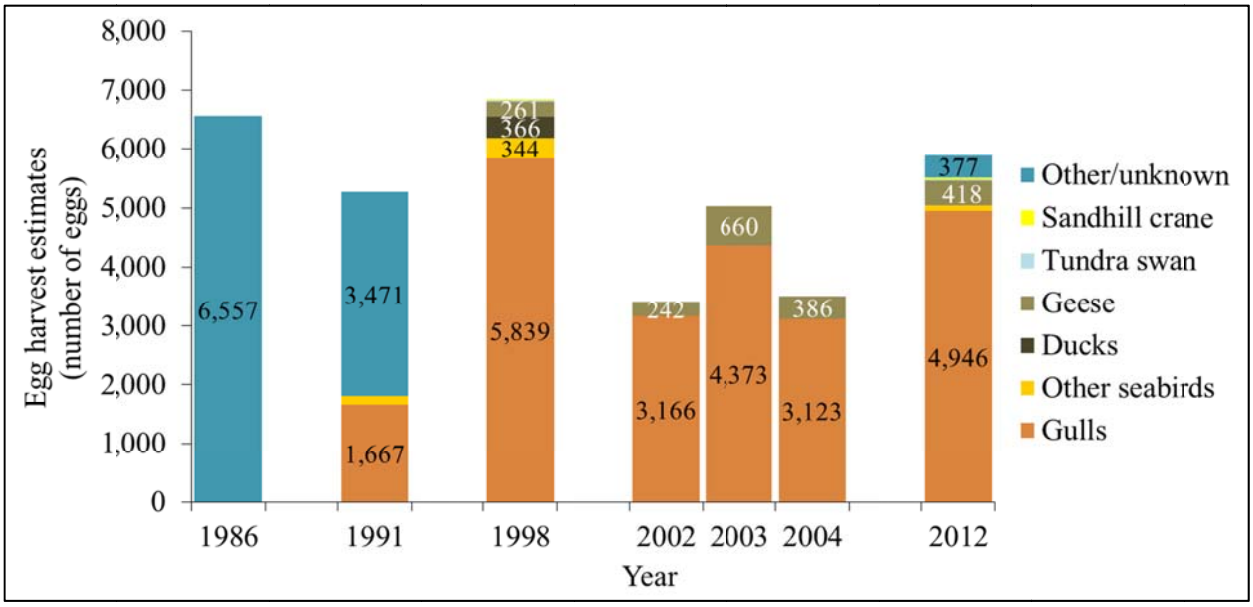

Figure 2. Kotzebue egg harvest estimates 1986–2012.

Data source for birds and eggs harvests presented in figures 1 and 2: 1986 (Georgette and Loon, 1993), 1991 (Fall and Utermohle, 1995), 1998 (Georgette, 2000), 2002–2004 (Whiting, 2006), and 2012 (present study). Harvest estimates for 1986, 1991, 1998, and 2012 represented the entire community. Harvest estimates for 2002–2004 represented households with tribal membership and did not include ptarmigan.

Table 1. Kotzebue bird harvest estimates (number of birds), April 2012–March 2013.

English, Iñupiaq	Estimated Bird Harvest (number of birds)						Reported harvest
	Spring Apr-Jun	**Summer** Jul-Aug	**Fall** Sep-Oct	**Winter** Nov-Mar	**Total**	**CIP**	
Wigeon, Ugiihiq	91	0	87	0	178	38%	47
Teal, Qaingngiq	53	0	42	0	95	38%	25
Mallard, Kuruġaisugruk	102	15	83	0	200	28%	49
Pintail, Kuruġaq	257	45	162	0	464	28%	119
Black scoter, Tuunġaaġruk	45	0	15	0	60	66%	16
White-winged scoter	8	0	8	0	16	59%	4
Canvasback	0	23	0	0	23	84%	6
Scaup, Qaqłuktuuq	38	0	38	0	76	59%	20
Common eider, Mitik	0	0	0	0	0		0
King eider, Qiŋalik	4	0	0	0	4	84%	1
Spectacled eider, Qavaasuk	0	0	0	0	0		0
Steller's eider, Iŋniqauqtuq	0	0	0	0	0		0
Long-tailed duck (olsdquaw), Ahaaliq	38	0	0	0	38	84%	10
Merganser, Paisugruk	0	4	0	0	4	84%	1
Duck (unidentified)	101	0	53	0	154	29%	37
Total ducks	**737**	**87**	**488**	**0**	**1,312**	**19%**	**335**
Brant, Niġliqnaq	494	45	57	0	596	27%	158
Canada/cackling goose, Iqsraġutilik	411	38	147	0	596	18%	158
White-fronted goose, Qigiyuk	226	8	53	0	287	23%	76
Emperor goose, Liġliqpak	0	0	0	0	0		0
Snow goose, Kanguq	132	0	0	0	132	45%	35
Goose (unidentified), Tiŋmiaq	8	0	0	0	8	59%	1
Total geese	**1,271**	**91**	**257**	**0**	**1,619**	**16%**	**428**
Tundra swan, Qugruq	11	4	15	0	30	33%	8
Sandhill crane, Tatirgaq	30	4	4	0	38	37%	10
Seabirds	0	0	0	0	0		0
Shorebirds	0	0	0	0	0		0
Common loon, Tuutlik	0	0	0	0	0		0
Pacific loon, Tunusulik-qaqsraup	0	0	0	0	0		0
Red-throated loon, Qaqsrauchauraq	0	0	0	0	0		0
Yellow-billed loon, Tuutlik	0	0	0	0	0		0
Grebe, Suġliq, suġlitchauraq	0	0	0	0	0		0
Grouse, Napaaqtuum aqargiq	0	0	0	8	8	84%	2
Ptarmigan, Aqargiq, niqsaaqtungiq	57	26	64	1,283	1,430	20%	379
Total birds	**2,106**	**212**	**828**	**1,291**	**4,437**	**11%**	**1,162**

CIP: Confidence interval as a percentage of estimated harvests.
Sources for Iñupiaq names: Webster et al. (1970), Burch (1985), Georgette and Loon (1993).

Acknowledgments
We thank all households that participated in this survey and shared information about their subsistence harvests. The Native Village of Kotzebue, especially Alex Whiting, facilitated this survey and its data review. Local surveyors Chelsea Hadley, Denali Whiting, Mahlon Ferreira, and Eryn Schaeffer-Newlin and ADF&G staff Elizabeth Mikow, Anna Godduhn, Brittany Retherford, and Loraine Navarro helped in data collection.

Table 2. Kotzebue egg harvest estimates (number of eggs), April 2012–March 2013.

English, Iñupiaq	Estimated Egg Harvest (number of eggs)						Reported harvest
	Spring Apr-Jun	Summer Jul-Aug	Fall Sep-Oct	Winter Nov-Mar	Total	CIP	
Ducks	0	0			0		0
Brant, Niġliqnaq	147	0			147	45%	39
Canada/cackling goose, Iqsraġutilik	79	0			79	49%	21
Goose (unidentified), Tiŋmiaq	192	0			192	45%	51
Total geese	**418**	**0**			**418**	**27%**	**111**
Tundra swan, Qugruq	34	0			34	75%	9
Sandhill crane, Tatirgaq	30	0			30	59%	8
Black-legged kittiwake	0	30			30	84%	8
Mew gull, Nauyatchaiq	113	0			113	84%	30
Large gull, Nauyaq	4,369	75			4,444	30%	1,178
Gull (unidentified)	321	38			359	43%	95
Murre, Atpa	0	91			91	84%	24
Total seabirds	**4,803**	**234**			**5,037**	**27%**	**1,335**
Shorebirds	0	0			0		0
Loons and grebes	0	0			0		0
Ptarmigans and grouses	0	0			0		0
Other/unknown bird	377	0			377	59%	100
Total eggs	**5,662**	**234**			**5,896**	**26%**	**1,563**

CIP: Confidence interval as a percentage of estimated harvests.

Photo by Wyman Meinzer, USFWS Archive

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