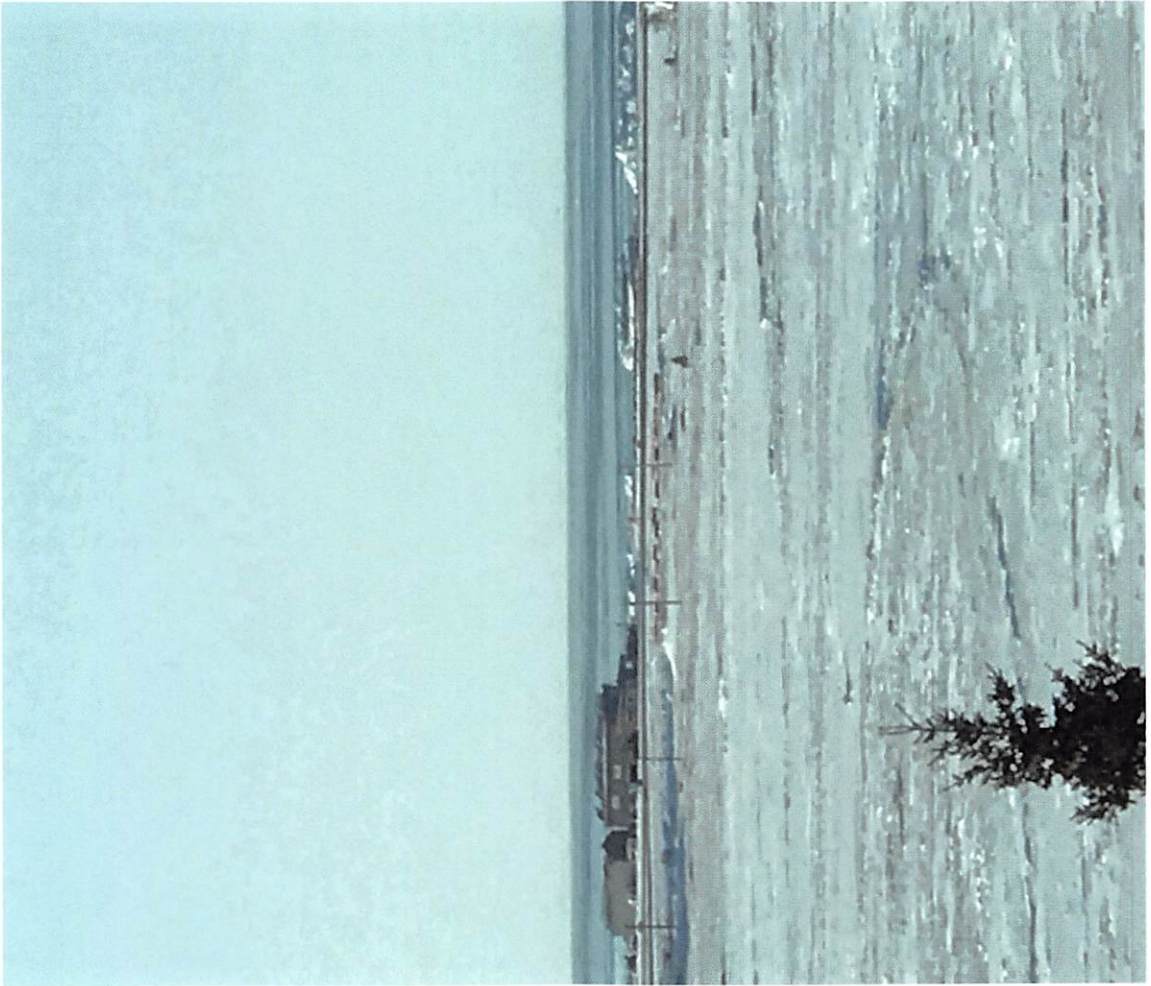


# Norton Sound Winter Through-the-Ice King Crab Fishery

- Policy on King and Tanner Crab Resource Management
  - Management Measure #8: In season adjustments recommended when “THE IMPACT OF SEVERE OR UNEXPECTED ENVIRONMENTAL CONDITIONS ON THE HANDLING AND TRAPPING MORTALITY OF CRAB” occurs.
  - Management Measure #9: “CONTROLLING DISEASE, REDUCING HANDLING AND TRAPPING MORTALITY DURING SEVERE OR UNEXPECTED ENVIRONMENTAL CONDITIONS... may be necessary”

# Unalakleet Sea Ice

2-25-2020

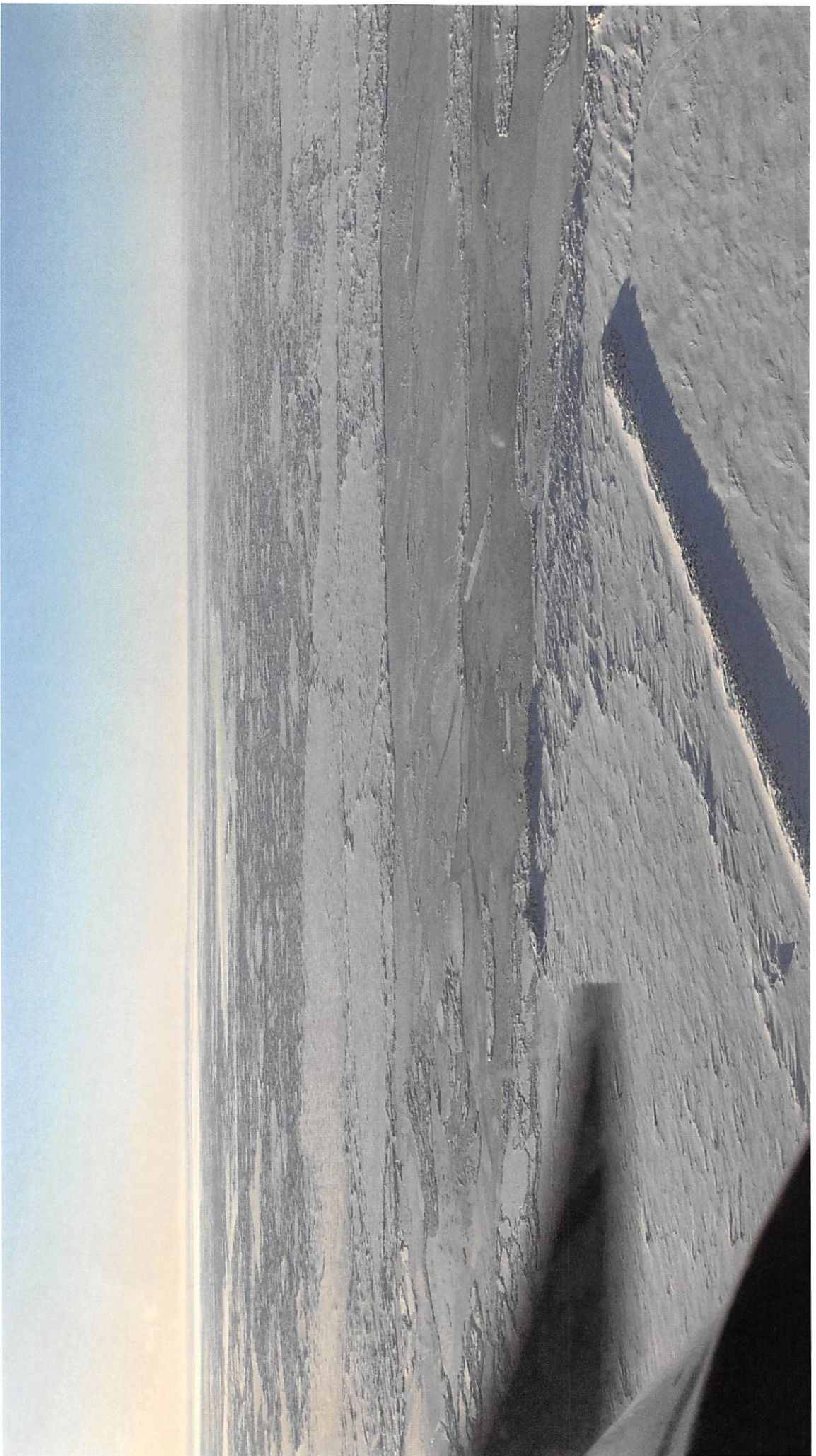




**Nome Sea Ice**

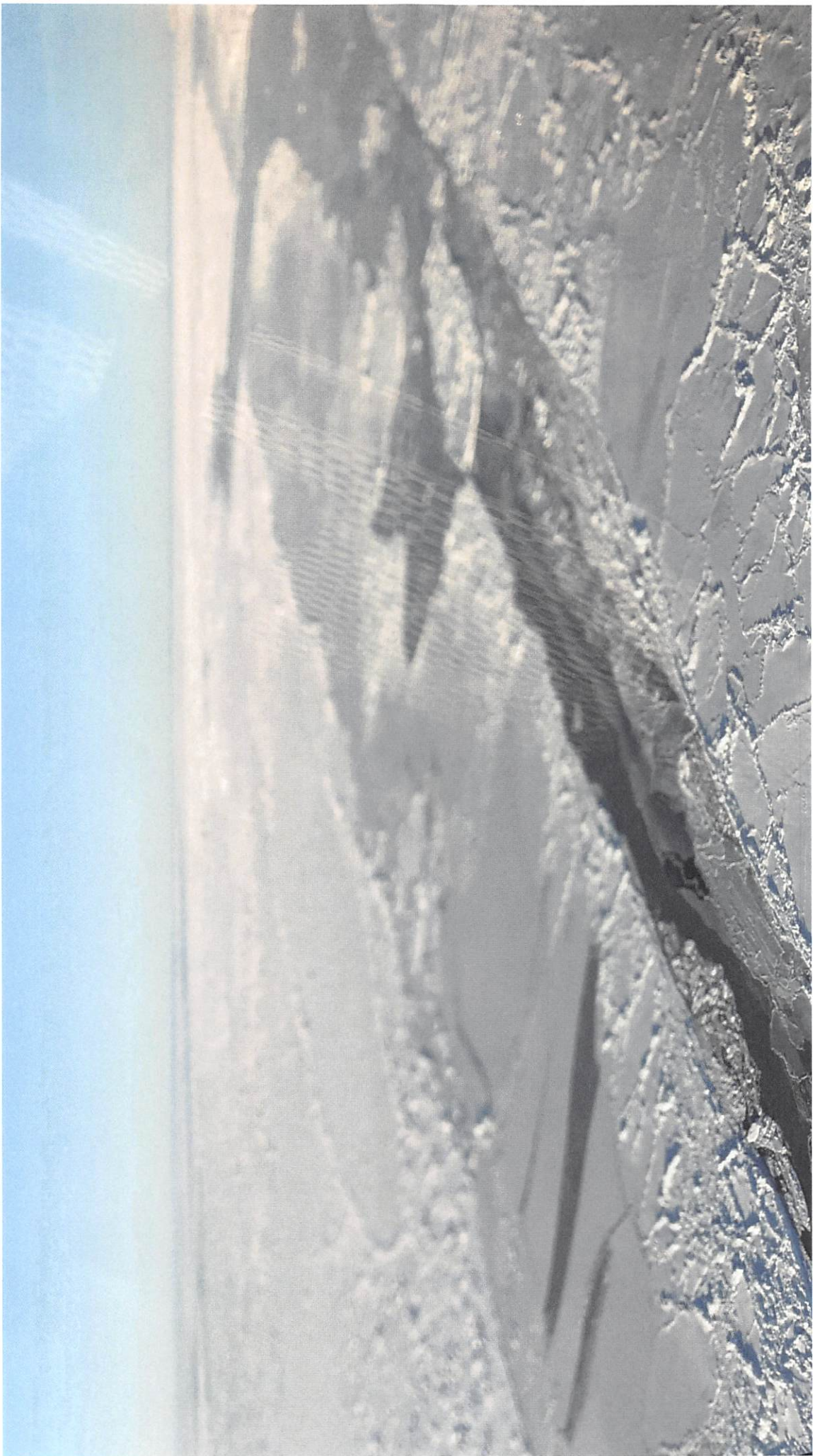
**2-27-2020**

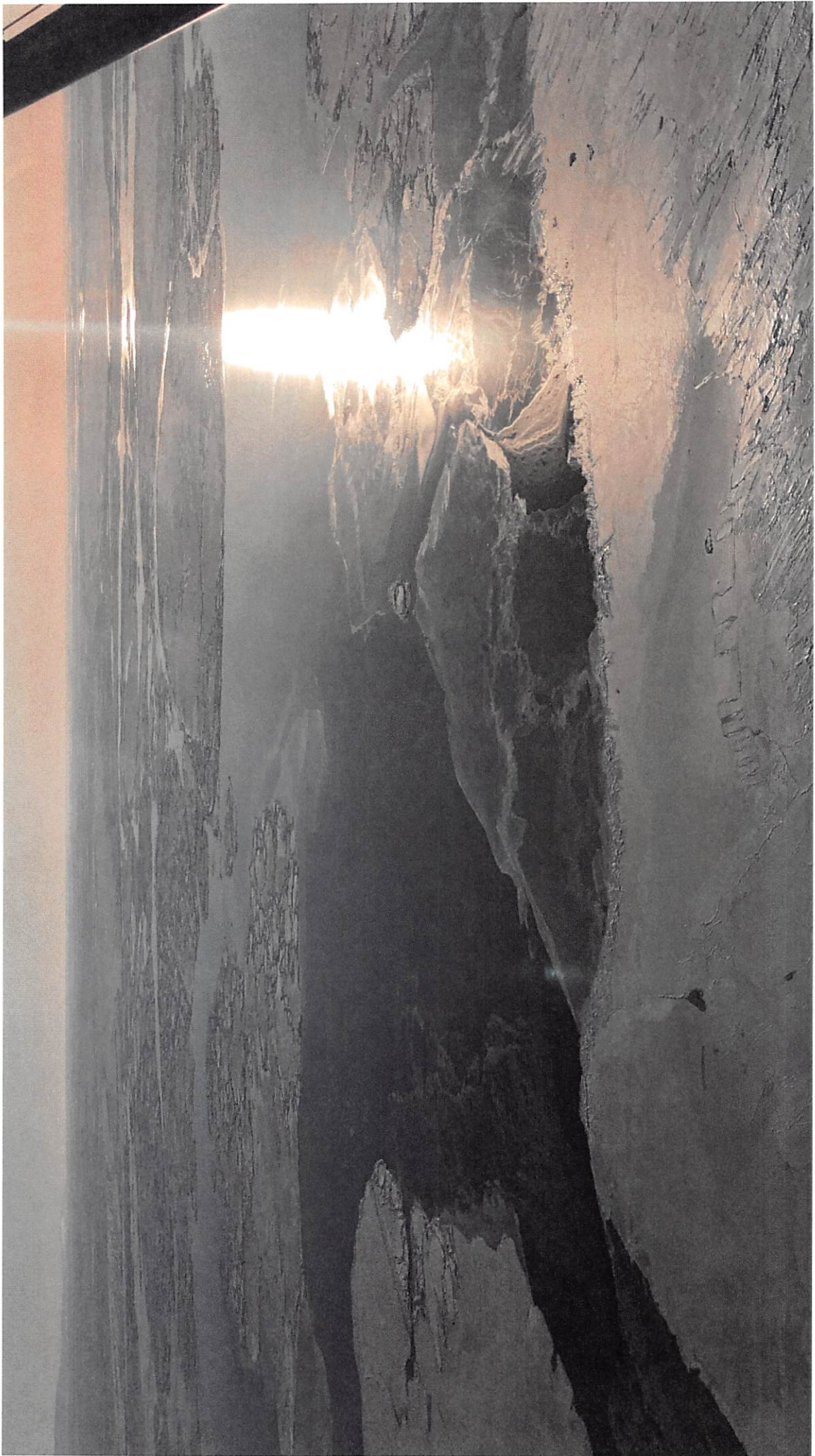








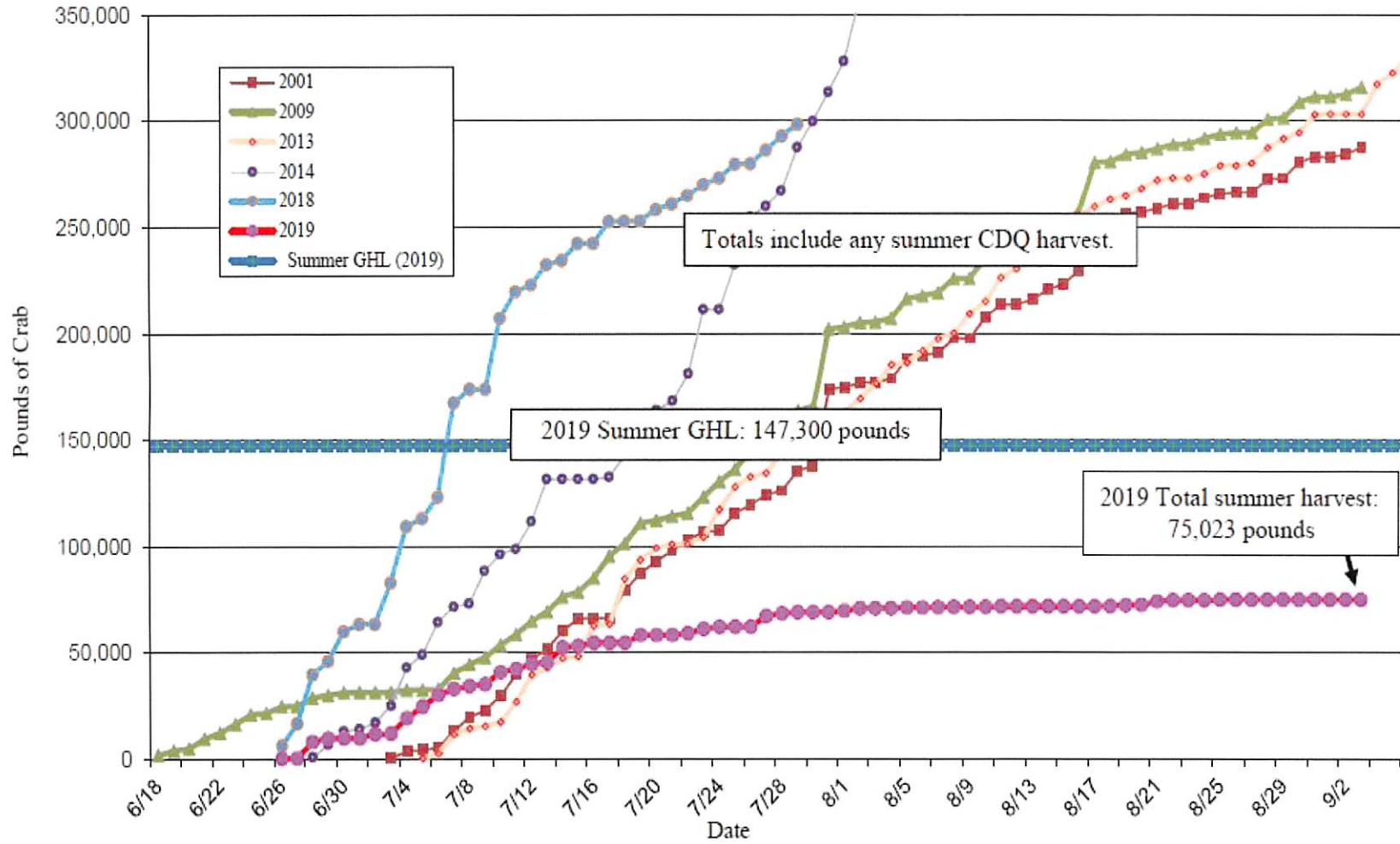




**3-1-2020**

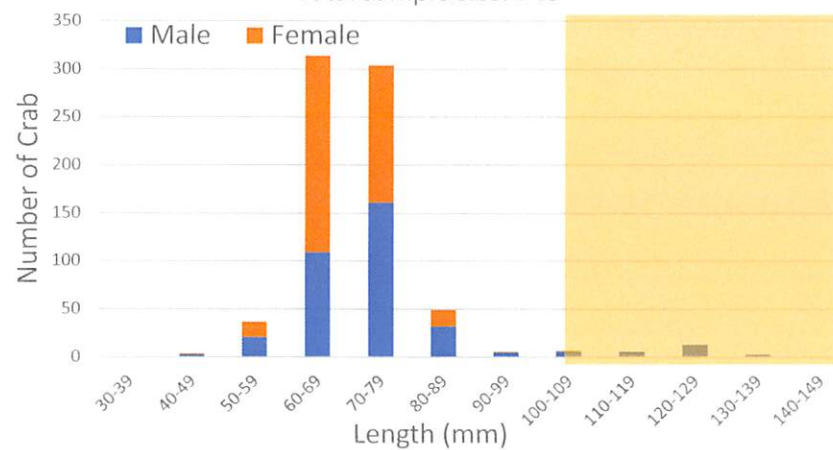


### Norton Sound Summer Red King Crab Fishery 2001, 2009, 2013, 2014, 2018 and 2019



### Crab Size by Sex, 2019 ADFG Trawl Survey

Total sample size: 745



### Norton Sound Red King Crab Clutch Fullness Trends

Data collected by ADFG Observer Program

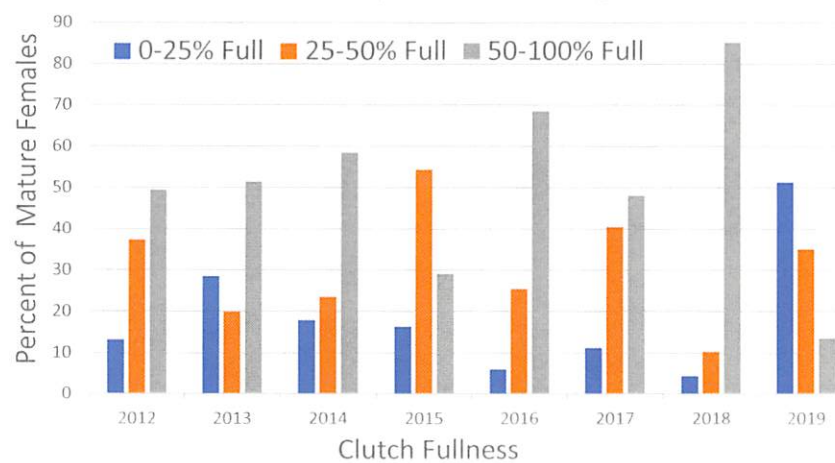


Table from ADF&G "2019 Norton Sound Winter & Summer Crab Season Summaries" with 2019 trawl survey results added.

Appendix 1. Standardized results from population assessment surveys for red king crab in Norton Sound since 1976.

Year	Dates	Research Agency	Gear	Population abundance estimates (number of crab) <sup>a</sup>			Legal male Biomass (pounds) <sup>d</sup>	Standard error		
				pre-2 males <sup>b</sup>	pre-1 males <sup>b</sup>	legal males <sup>c</sup>		pre-recruit- 2 males	pre-recruit- 1 males	legal males
1976	9/02–9/05 9/16–10/07	NMFS	Trawl	653,106	1,414,353	2,491,086	7,473,258	285,637	642,876	801,298
1979	7/26–8/05	NMFS	Trawl	19,038	47,313	813,274	2,439,822	16,488	22,711	204,197
1980 <sup>e</sup>	7/04–7/14	ADF&G	Pots			1,900,000	5,700,000			
1981	6/28–7/14	ADF&G	Pots			1,285,195	3,855,585			
1982	7/06–7/20	ADF&G	Pots			353,273	1,059,819			
1982	9/05–9/11	NMFS	Trawl	379,347	1,012,272	918,686	2,756,058	120,610	295,984	243,467
1985	7/01–7/14	ADF&G	Pots			907,579	2,722,737			
1985	9/16–10/1	NMFS	Trawl	402,922	664,594	1,132,662	3,397,986	157,046	281,598	249,394
1988	8/16–8/30	NMFS	Trawl	583,924	486,570	972,757	2,918,271	146,733	249,394	354,901
1991	8/22–8/30	NMFS	Trawl	386,338	408,241	1,545,558	4,636,674	297,059	157,018	450,814
1996	8/07–8/18	ADF&G	Trawl	395,888	277,595	528,431	1,585,293	243,594	78,712	157,909
1999	7/28–8/07	ADF&G	Trawl	96,295	582,799	1,542,589	4,627,767	56,017	165,689	318,731
2002	7/27–8/06	ADF&G	Trawl	393,689	482,815	740,450	2,221,350	85,797	81,271	81,271
2006	7/25–8/08	ADF&G	Trawl	937,083	571,890	718,379	2,155,137	551,144	153,272	105,487
2008	7/24–8/11	ADF&G	Trawl	795,777	689,843	811,727	2,435,181	187,516	120,153	152,145
2011	7/18–8/15	ADF&G	Trawl	431,153	311,550	1,310,634	3,931,902	151,713	87,866	123,310
2014	7/18–7/30	ADF&G	Trawl	1,547,538	2,110,274	1,747,720	5,243,160	643,563	1,474,574	912,399
2017	7/28–8/08	ADF&G	Trawl	258,235	288,615	941,797	2,825,391	78,381	100,434	270,551
2018	7/22–7/29	ADF&G	Trawl	212,664	151,903	303,806	911,418	58,798	61,909	93,597
2019	7/17–7/27	ADF&G	Trawl	1,215,222	106,332	407,525	1,222,575	764,608	53,261	132,697

Note: Blank cells are because the numbers were not calculated.

<sup>a</sup> Population estimates are valid for the date of the survey (i.e., either before or after the summer commercial fishery). All historical abundances were updated based on newly recovered data.

<sup>b</sup> Pre-2 males were defined as 76–89 mm in carapace length (CL) and pre-1 males were defined as sublegal crab  $\geq 90$  mm CL.

<sup>c</sup> Legal male red king crab were defined as  $\geq 121$  mm (4.75 in) in carapace width (CW) for the pot surveys and all ADF&G trawl surveys, and  $\geq 104$  mm CL for all NMFS trawl surveys, except the 1979 survey, which defined legal males as  $\geq 100$  mm CL.

<sup>d</sup> Legal male biomass is estimated by multiplying the population abundance estimate of legal males by an average weight of 3.0 pounds.

<sup>e</sup> The 1980 pot survey estimate has been revised from the original estimate of 13.4 million pounds, which was thought inaccurate due to an under-reporting of recovered tagged crabs.