



September 29, 2021

Mr. Simon Kinneen, Chairman
North Pacific Fishery Management Council
1007 West Third, Suite 400
Anchorage, AK 99501

RE: Comment on Agenda Item C1 (BSAI Crab)

Dear Chairman Kinneen and Council Members:

The Alaska Bering Sea Crabbers (ABSC) is a trade association representing the majority of independent crab harvesters who commercially fish for king, snow (opilio), and Tanner (bairdi) crab with pot gear in the Bering Sea and Aleutian Islands Crab Rationalization Program. We appreciate the opportunity to comment on Agenda Item C1 – BSAI Crab – SAFE report, ABC/OFL; Plan Team report.

It is hard to digest the magnitude of this year's bottom trawl survey results for crab, what's coming out of the stock assessments, and what we are facing as an industry, seemingly overnight. Given the closure of the Bristol Bay red king crab fishery for the first time in 25 years and a snow crab fishery that is expected to be cut by 80% or more and declared overfished, we are bracing for roughly a \$200M hit to harvesters.¹ It is simply catastrophic. We have boats that are not going to be able to make their payments, vessel repairs that will be delayed, and long-time skippers and crew that are losing their jobs, not to mention all the downstream affects to processors, communities, supply chains, and support businesses.

We know we must rely on the science. However, what the science is telling us is troubling to say the least paired with, for snow crab, a stock assessment model that is unstable.

GMACS/Spatial Modeling

To help address the instability in the snow crab stock assessment model, we ask that it be moved to the General Model for Alaska Crab Stocks (GMACS) as quickly as possible. GMACS is a platform or structure for crab assessments that allows stock assessment authors to better review each other's work and create more parallels between assessments. It will also allow crab stock assessments to adapt to new tools available such as Northern Bering Sea (NBS) survey data or spatial modeling – both are important as crab are moving. We ask that snow crab be prioritized to move into GMACs to help stabilize the stock assessment and to allow future incorporation of

¹ Snow crab = 45Mlb TAC – assuming 8Mlb TAC (TAC can't exceed 12Mlb ABC) = ~37Mlb reduction from last year at ~\$5/lb ex-vessel price = \$185M impact to industry. BBRKC = 2.6 Mlb TAC - 0 = 2.6Mlb reduction from last year at ~\$12/lb ex-vessel = \$31M. Total impact expected to be ~\$216M

NBS data. We also encourage more use of spatial modeling for Bering Sea crab stocks in general to better address changing environmental conditions and crab movement.

Boundary Issues

We know crab are moving in atypical ways. For BBRKC, the survey showed a continuous stock that stretched to the northwest outside of the BBRKC management zone and was not included in the stock assessment (Figure 1). Viewed another way, the center of distribution for the stock has been shifting to the north/northwest for both male and female red king crab (Figures 2 & 3).

Figure 1. Proportion of male and female crab (*Paralithodes camtschaticus*) maturity classes caught at all EBS stations sampled in 2021, including the Bristol Bay and Pribilof District (NOAA Technical Memorandum NMFS-AFSC - The 2021 Eastern Bering Sea Continental Shelf Trawl Survey Results for Commercial Crab Species (DRAFT))

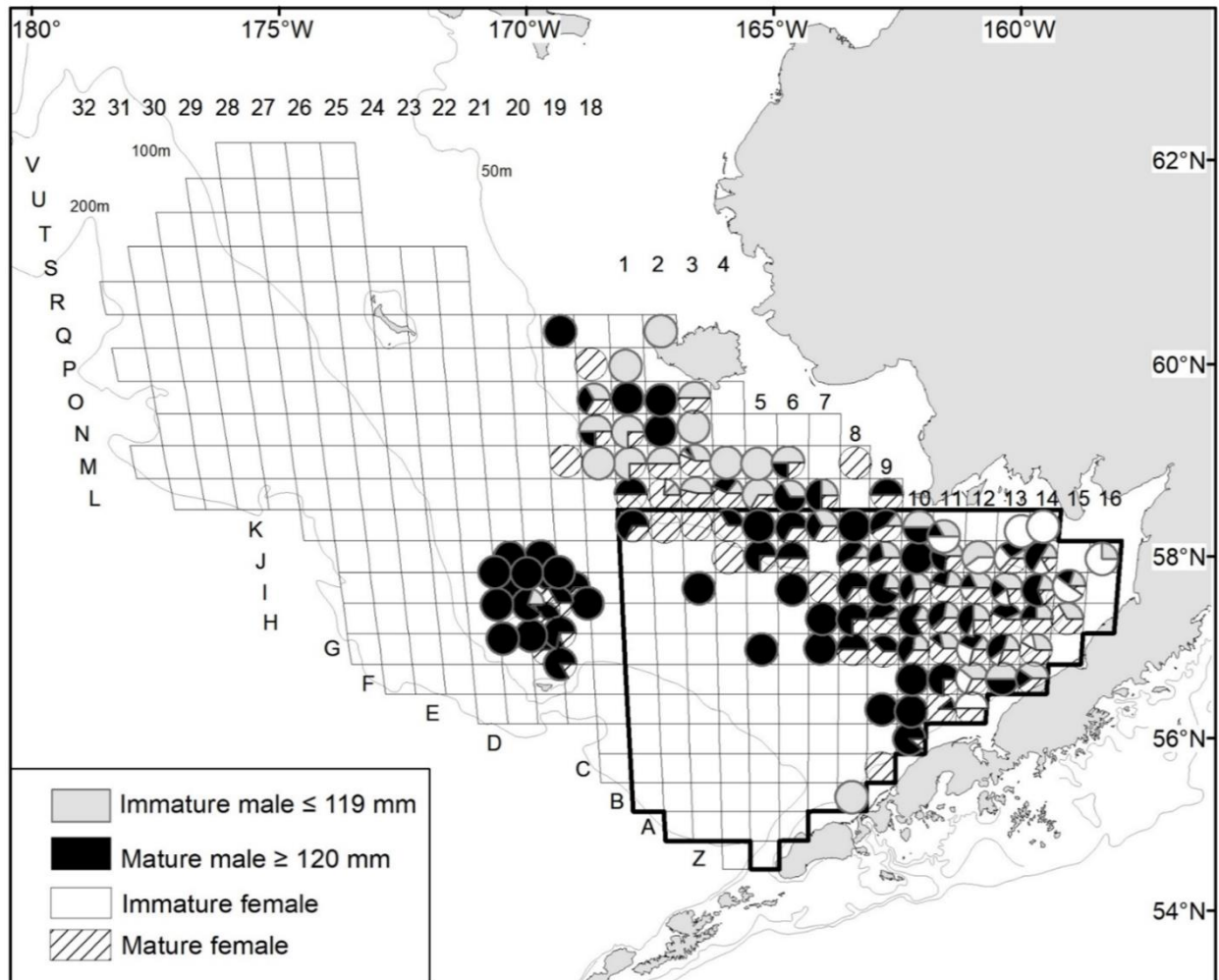


Figure 2. Red King Crab – Mature male center of distribution
NOAA Fisheries [Bottom Trawl Survey Results presentation](#) at the Sep 2021 Crab Plan Team meeting

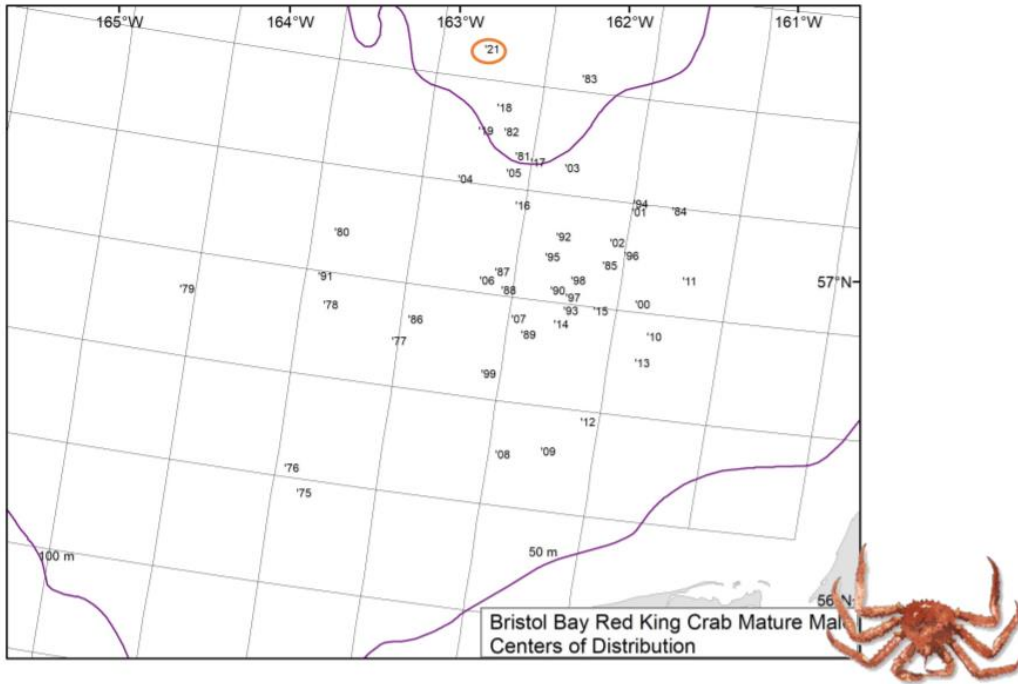
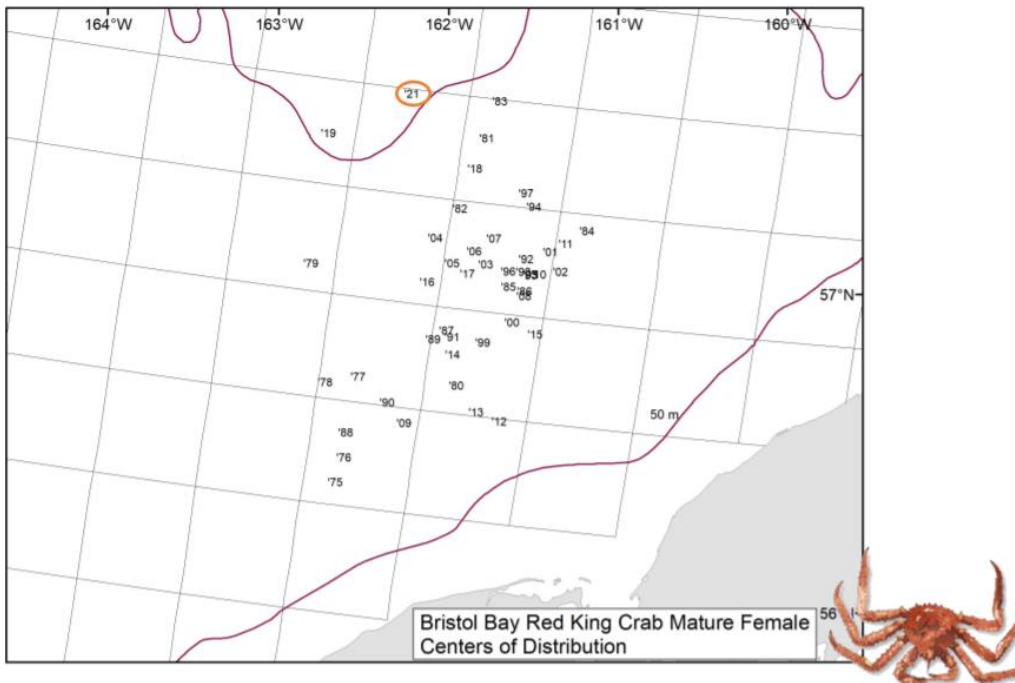
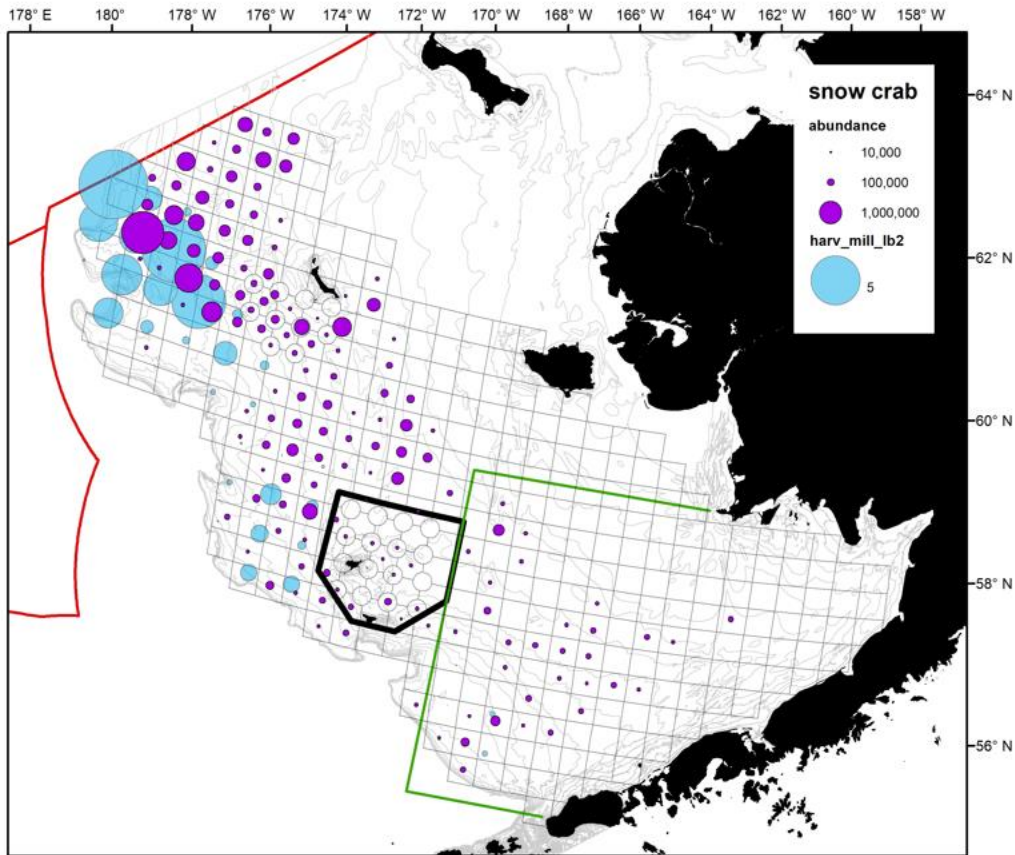


Figure 3. Red King Crab – Mature female center of distribution
NOAA Fisheries [Bottom Trawl Survey Results presentation](#) at the Sep 2021 Crab Plan Team meeting



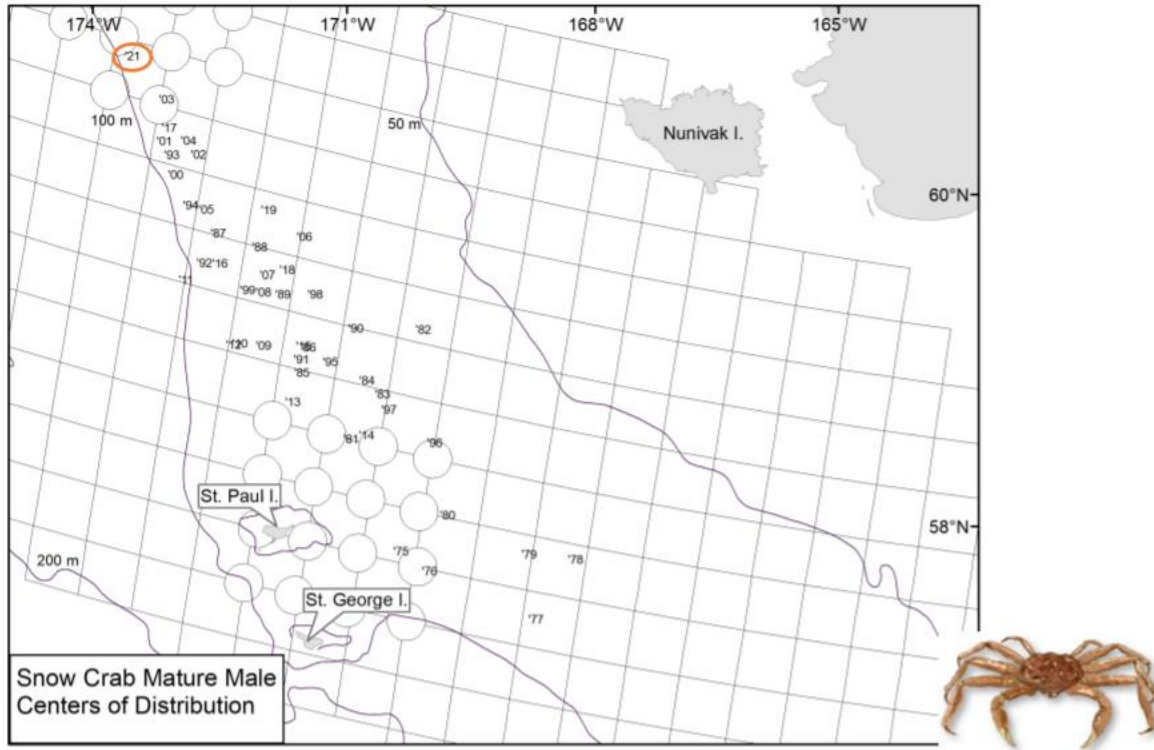
For snow crab, fishing was the deepest and farthest west that it has ever been, right on the Russian border. For a visual depiction of this, see Figure 4 below showing winter fishery CPUE alongside summer survey catches, and the center of distribution for male snow crab in Figure 5.

Figure 4. Winter snow crab fishery CPUE alongside summer NMFS survey abundance of 4-inch males [2020/21 BSAI crab catch and fishery performance presentation](#) at the Sep 2021 Crab Plan Team meeting



Purple= 2021 survey abundance 4 inch males
Blue = 2020/21 fishery harvest

Figure 5. Snow Crab – Mature male center of distribution
NOAA Fisheries [Bottom Trawl Survey Results presentation](#) at the Sep 2021 Crab Plan Team meeting



We also know from recent surveys (Figure 6) that some of the snow crab population (largely immature male and female, Figure 7) is moving north and straddling the NBS which is currently not included in the stock assessment. We need to address the boundaries of the survey, the stock assessments, the fishery, and management in response. **We need to create stock assessments and management systems that can be flexible to adapt** to these moving stocks. In ABSC's comment letter under Agenda Item E1 (Staff Tasking), we ask for a discussion paper covering the growing boundary issues for BSAI crab stocks.

Figure 6. Estimated total density of legal-sized male snow crab at each station sampled in 2019
[The 2019 eastern and northern Bering Sea continental shelf trawl surveys : results for commercial crab species](#)

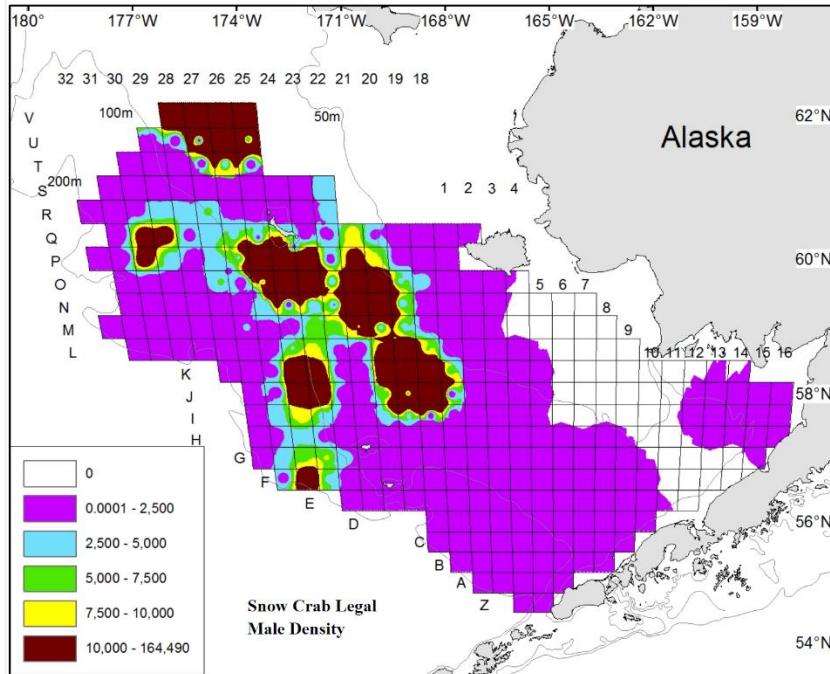
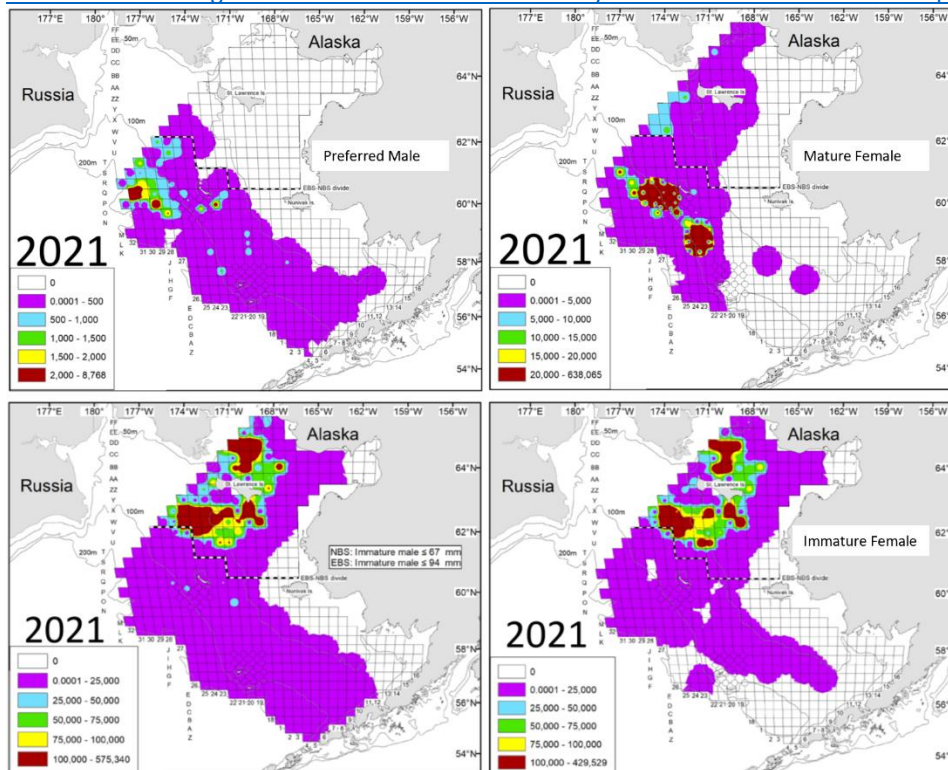


Figure 7. Estimated snow crab abundance by sex and maturity status in the Eastern Bering Sea and Northern Bering Sea boundaries

[2021 Eastern Bering Sea Continental Shelf Trawl Survey Results for Commercial Crab Species \(DRAFT\)](#)



Historical snow crab management does not include NBS abundance estimates in the federal and state management process and only includes EBS abundance estimates in the ABC and TAC setting process. This is not in alignment with the Bering Sea snow crab fishery that extends northward to the Bering Strait and the boundary of the Arctic Management area.

Deeper Survey Stations

Given the 2020/2021 fishery found high catch rates and good fishing deeper, we request that some deeper survey stations be added for the 2022 summer survey using shelf survey gear. This will help us better understand if snow crab are present in the deeper water at the time of the survey and moving deeper, more in line with where fishing occurred during the 2020/21 season.

Support BSFRF Comments

We support the comments and research priorities outlined by the Bering Sea Fisheries Research Foundation (BSFRF) in their comment letter to the Scientific and Statistical Committee (SSC) under agenda item C1 at this meeting. BSFRF is an industry-funded research organization that partners with federal and state scientists, as well as academia, on important research to better understand crab stocks.

Snow Crab Season

We understand that for the first time in the history of the snow crab fishery, the acceptable biological catch (ABC) will likely constrain the total allowable catch (TAC) that comes from the state harvest strategy. Like BBRKC last year, the ABC will need to be reduced by expected bycatch before setting the TAC. We are exploring ways to further reduce discards in our directed fishery, including testing larger mesh sizes and longer soak times and avoiding areas of females through hotspot reporting for this upcoming season. We ask that the Council and other sectors also look for ways to reduce their bycatch of crab through hotspot reporting and moving out of areas with crab, if encountered. We recognize that our snow crab TAC will be significantly reduced in accordance with the state harvest strategy and the federal ABC control rule. In order to support our fishermen, our communities, and our markets, we want to make sure there is at least a small snow crab fishery if at all possible within the defined management process and science inputs.

Thank you for considering our comments.

Sincerely,



Jamie Goen
Executive Director
Alaska Bering Sea Crabbers
jamie@alaskacrabbers.org