

ADVISORY PANEL
Motions and Rationale
February 1-5, 2021 - Anchorage, AK

C4 Crab PSC Limits

The AP recommends the Council identify Alternative 2 as the PPA with the following revisions (in red) and move forward to final action.

Draft Purpose and Need

At present, most Bering Sea crab stocks are experiencing low productivity and small population sizes, leading to large reductions in directed harvest levels. These problems appear to be ongoing and lead the council to examine existing PSC limits to determine whether both directed harvest and bycatch measures are responsive to these adverse conditions.

This action would increase the linkage between controls on crab bycatch in groundfish fisheries and the harvest controls on the directed crab fishery by establishing explicit reductions in allowable bycatch levels when the directed fishery is closed. **The need for this action is to better help the crab stock grow to levels to again support a directed fishery.** This action is intended to ensure there is consistency in management measures between directed fisheries and bycatch in groundfish fisheries, making more explicit the balance of impacts to all the fisheries and communities that are affected by the status of depressed stocks.

Alternative 1: No Action

Alternative 2: Reduced PSC limits for BSAI trawl CDQ and non-CDQ groundfish fishing, **for the upcoming fishing year**, when the corresponding directed crab fishery is closed.

When no Crab Rationalization Program individual fishing quota (IFQ) is issued in a season for BBRKC, bairdi, or opilio, set the crab PSC limit for that stock at the lowest abundance-based level. As described in regulation at 50 CFR 679.21(e)(1), the PSC limits for the groundfish fisheries would be as follows under this alternative when the directed crab fishery is closed:

- Bairdi Zone 1 – **the lower of (1) 0.5% of total abundance minus 20,000 animals or (2) 730,000 animals**
- Bairdi Zone 2 – **the lower of (1) 1.2% of the total abundance minus 30,000 animals or (2) 2,070,000 animals**
- BBRKC Zone 1 - 32,000 red king crab
- Opilio - 4.350 million animals

The Council requests that the analysis include source numbers for the crab abundance estimates used to calculate the PSCs and clearly state whether they are from raw numbers.

Substitute Motion

The AP recommends that the Council take no further action on this agenda item and instead focus on a comprehensive review of crab bycatch across all gear types and fisheries, including the directed fishery. Further, the AP recommends that alternative bycatch reduction strategies be considered relative to using PSC limits (such as gear modifications, fishing strategies, etc). If it is determined that PSC limits are the appropriate method, the Council should consider applying PSC limits to the fisheries and gear types that have demonstrated they have significant interactions with crab species.

Substitute Motion failed 7-12

Main motion passed 14-6

Rationale in Favor of Main Motion:

- *This is a narrow, straightforward action to add a trigger into PSC management as another layer of conservation for crab stocks. This action signals support for revising crab PSC regulations for Bristol Bay red king crab (BBRKC), bairdi, and opilio to create stronger incentives to minimize crab bycatch. In particular, when a directed crab fishery is closed, managers should reduce the impacts on crab where possible to provide more opportunity for the stock to grow to a level to again support a directed fishery.*
- *The Purpose and Need statement highlights that this action creates incentives to minimize bycatch, thereby reducing impacts on the stock so it can more quickly grow to a level to again support a directed fishery balancing impacts to all of the fisheries and communities that interact with that stock. The revised language to the Purpose and Need clarifies the need for this action as a conservation measure to help the stock grow to a level to again support a directed fishery on larger males and consequently higher PSC limits for bycatch.*
- *The Council has been reviewing crab PSC limits through various discussion papers and documents for almost 10 years with little progress, starting out with all crab, then focusing on snow crab.*
- *Written comment by the Bering Sea Fisheries Research Foundation speaks to episodic, event-driven recruitment of crab. The impacts of the lightning strike events described in the Council analysis can have disproportionate effects on crab stocks due to their patchy spatial distribution and episodic recruitment. Any incentives, such as this action, to help move bycatch fisheries off of crab and reduce impacts, help the stock and directed crab fisheries.*
- *Public testimony flagged concerns over a mismatch in PSC limits using an example where the directed bairdi fishery was recently closed and yet the trawl PSC limit is at the highest possible amount.*
- *The revised language offered for Alternative 2 incorporates Council staff interpretation of the alternative as it applies to Tanner crab.*
- *This motion would help better meet National Standard 9 – Bycatch; Conservation and management measures shall, to the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.*
- *Current crab PSC limits and triggers are based on a 25 year old, industry negotiated compromise and does not consider the best, most current science, which is a requirement under the MSA.*

- *The sensitivity analysis (Appendix 4) from stock assessment authors showed that based on estimates of observed bycatch mortality, it would take magnitudes of bycatch 500-1000% higher to have an effect on the crab stocks. However, several components were not factored into that analysis: (1) this was a numbers exercise and did not take into account crab population level dynamics and episodic recruitment; (2) it does not factor in disproportionate impacts on crab at vulnerable life stages, such as molting or mating; and (3) unobserved mortality was not taken into account and has the potential to be significant given studies that show 95-99% of crab go under the footrope with some additional level of mortality and escape capture in the net (i.e., if we are only seeing 5% of the bycatch, the potential for crab mortality could be magnitudes higher).*
- *Directed crab fisheries recognize and appreciate the efforts sectors are currently taking to reduce crab bycatch. The Amendment 80 trawl sector has reduced their impact on crab by raising their trawl sweeps around 2011. The over and under 60' pot cod sectors have both actively worked in recent years to reduce bycatch through gear design research and through voluntary hotspot reporting in partnership with crabbers. The new halibut pot fishery developing in the Bering Sea is also part of the collaborative gear design research to reduce crab bycatch. These efforts are proving effective at reducing bycatch since that 2018 high. The directed crab fishery is also actively working to reduce their impacts on crab by working with the Alaska Department of Fish and Game and the Board of Fisheries to change fishing practices, including closure of the EBT fishery this year to reduce BBRKC bycatch. And the over 60' pot cod CV sector is actively pursuing a catch share plan in an effort to acquire additional tools to reduce bycatch*

Rationale in Opposition to Main Motion:

- *The added language to the Purpose and Need statement alters the intent of the original action to add a trigger to crab PSC management beyond that of a narrow policy decision. NEPA requires a reasonable range of alternatives be considered that will meet the goals outlined in the Purpose and Need statement. The analysis does not show that the current range of alternatives will result in the growth of crab stocks. Therefore, the alternatives would need to be revised and/or expanded in order to be able to judge any measurable impacts against that specific newly added goal. The analysis shows minimal positive biological impacts between the no action and current action alternatives.*
- *The health of BS crab stocks, especially that of BBRKC, necessitates the Council take a broader look across all fisheries that interact with crab in order to determine what can be done to mitigate and minimize crab bycatch mortality. A more holistic approach is necessary to get at the root of the issues negatively impacting crab stock biomasses. Expanding an analysis to encompass all fisheries with crab bycatch (including the directed crab fishery) should result in a more meaningful approach that will ultimately result in significant positive measurable outcomes for crab populations.*
- *The current analysis clearly demonstrates that other sectors of the groundfish and crab industry have documented bycatch interactions that are multitudes larger than those seen in the trawl industry. But previous discussion papers/analyses on the issue of crab PSC over the course of the past 10 years have focused only on trawl gear, all of them demonstrating little meaningful effect and impact upon crab biomass and the directed crab fisheries. In spite of expected complexities, pivoting now to a comprehensive, holistic approach will ultimately provide more meaningful conservation improvements to crab stocks sooner rather than later,*

which is the ultimate goal. As such, given limited Council and NMFS resources, it is more appropriate to focus effort and expand this action to encompass other fisheries/areas that have more meaningful interactions with crab. If a holistic approach is not taken, it will be only the trawl fisheries with crab PSC limits that are shouldering the conservation burden when they are not the sector with the largest amount of crab interaction and bycatch/bycatch mortality.