Alaska Groundfish Data Bank

P.O Box 788 Kodiak, AK 99615 (907) 486-3033
Julie Bonney, Executive Director jbonney@alaskagroundfish.org
Chelsae Radell, Assistant Director cradell@alaskagroundfish.org

February 2, 2024

North Pacific Fishery Management Council
1007 West Third, Suite 400
Anchorage, Alaska 99501-2252

RE: Agenda Item D2: Gulf of Alaska Tanner Crab Protections

Dear Chairwoman Drobnica and Members of the Council,

Alaska Groundfish Data Bank, Inc (AGDB) is a member organization representing Gulf of Alaska (GOA) shorebased trawlers mostly homeported in Kodiak and shorebased processors that operate in the GOA. The Tanner crab fishery is a vitally important fishery to the community of Kodiak. Several of our members participate in Kodiak's Tanner crab fishery and it is an important piece of their business plan. Our members believe that there can be multiple robust fisheries coexisting at the same time around our island home, which in turn supports Kodiak's fisheries-based economy. Trading one fishery for another is neither necessary nor beneficial to anyone.

We appreciate the analyst's work on the GOA Tanner Crab Protections Discussion Paper and find the revised document much improved. Before considering the new discussion paper, it is important to highlight the history of actions in the Council process that have both indirectly and directly improved Tanner crab protections in the GOA, as well as improving Tanner Prohibited Species Catch (PSC) accounting.

- 1987 - GOA Groundfish Fishery Management Plan (FMP) Amendment 15 (renewed in 1989 with A18 and in 1992 with A26) establishing Type I, II, and III King Crab closure areas.[1]
- 2013 - GOA FMP Amendment 76 implemented the restructured Observer Program, in part "*to improve estimates of Tanner crab bycatch, an observer deployment strategy that ensured adequate coverage to establish statistically robust observations in the three areas near Kodiak.*"[2]
- 2014 - GOA Groundfish FMP Amendment 89 establishing the Marmot Bay Tanner Crab Protection Area (MBTCPA) and requiring sweep modifications for NPT gear in flatfish fisheries.

In the current discussion paper, Table 20 shows the average tanner crab abundance estimates from ADF&G trawl surveys (2013-2023) in the two statistical areas of interest (525630 and 525702), as well as the existing crab protection areas around Kodiak Island. Despite the fact that the fixed area closures have been in place since 2014 (MBTCPA) or since 1987 (Type I and II closure areas), they have not resulted in a rebound of the king crab stock nor offered much, if any, protection for the Tanner crab stock in federal waters. Just 1% of the average Tanner crab abundance from the last decade of surveys resides in the federal waters portion of the MBTCPA and only 4% in the entire closure area of 112 nm[2][3].

Since Amendment 89 went into effect in 2014, the June 2017 discussion paper noted that "*impacts from that action that could, at least indirectly, improve population conditions for CGOA Tanner crab through reduced mortality may not be fully manifested (female Tanner crab are reproductively mature at age 5 and females at age 6)*." Now that we are a full decade out from the implementation of A89, one would expect at least some positive effects to be apparent. Although the

[1] *Note: The Type III closure area is triggered by a threshold that has never been reached since implementation, so this letter only refers to Type I and II closure areas.*
[2] *CGOA Crab Protection Measures Discussion Paper, page 5. NPFMC. June 2017.*
[3] *Note: All closure area sizes in nm² are taken from: North Pacific Conservation and Spatial Management Areas in Alaska's EEZ Area Summaries. NPFMC. March 2023.*

Type I and II closures were primarily meant for king crab protections, they indirectly allow protection for Tanners as well. However, despite 1,769 nm^2 of fishing area being closed for nearly 40 years, the federal waters portion of the Type I and II closure areas holds just 12% of the average total tanner crab abundance.

Comparatively, the two statistical areas of interest, where both pelagic and non-pelagic trawl fishing is occurring, has the largest Tanner crab abundance; 26% of the average Tanner crab abundance reside in 525630 and 525702. From this juxtaposition, one could infer at a minimum that trawl vessels have minimal impact on Tanner crab in the GOA and at best that areas fished are better for Tanner crab than those that are closed. While conditions for Tanner crab could simply be better there, the scientific basis for the positive impacts of trawling in those areas are strong; the trawl harvest of groundfish in those areas remove predators on larval and post-larval crab specifically, allowing year classes to survive and contribute to the Tanner biomass. There has also been extensive research that when well-managed, bottom trawling is a sustainable food production system. Hilborn, et al concluded "*The overall sustainability of bottom-trawl fisheries is perhaps best demonstrated by the 83 bottom-trawl fisheries that are currently certified by the Marine Stewardship Council (MSC)*."[4] The GOA's trawl fisheries for pollock, Pacific cod, flatfish, and rockfish are all MSC-certified and Tanner crab continue to thrive in areas where trawl groundfish harvest occurs.

There is strong evidence that static time and area closures do not work. On a policy level, we believe the Council needs to move away from fixed closures.

Over the last few decades, a lot has changed both in our fisheries management and our ocean ecosystem. The climate and a warming ocean continues to create dynamic shifts in the distributions and composition of groundfish stocks. The best available science has improved dramatically with regards to the impact of fishing on habitat and fish stocks. Both through regulatory requirements such as Amendment 89 and the innovation of manufacturers and fishermen, trawl gear has changed dramatically. Almost all vessels now use mid-water doors when bottom fishing so the large steel doors are no longer impacting the ocean floor. For the last decade, non-pelagic trawl gear has been required to have sweep modifications, raising the sweeps off the seafloor in the directed flatfish fisheries in the CGOA. This requirement was aimed at reducing unobserved injury and mortality of tanner crab, and to reduce the potential adverse impacts of the gear on bottom habitats.

Is there scientific evidence of a problem?

The current discussion paper focuses the reader on the first half of the year since this is the time frame when Tanner crab molt and are most vulnerable. Information in the paper shows the following:

<u>*Groundfish Harvest:*</u> Table 8 breaks down harvest within the two statistical areas for the first half and second half of the year. From 2019 - 2023, pollock harvest in the first half of the year ranged from 79 mt to 747 mt. Non-pollock harvests ranged from 5,280 mt to 7,040 mt when there was a viable shoreside flatfish market and dropped to 231 – 630 mt when there were severely limited flatfish markets and a much-reduced Pacific cod quota. During the recent time frame (2021 – 2023), both pelagic and non-pelagic trawl harvests are less than 1,500 mt for the first six-month period each year, compared to the roughly 141,000 mt available[5].

<u>*PSC Estimates:*</u> The Tanner PSC data in Tables 9 – 15 requires additional context when assessing its meaning because including 2020 data is extremely problematic for two reasons. First, the directed federal Pacific cod fishery was closed for all gear types, with some limited directed pot cod fishing in the state fishery. Thus, any PSC estimates for 2020 are based on extrapolated data for the entire GOA FMP area. Specifically for pot gear, the PSC estimates are most likely from the IFQ sablefish fishery, which typically does not encounter crab given that the fishery occurs off the shelf, outside of suitable crab habitat. This pot gear PSC estimate is then extrapolated to the state waters Pacific cod fishery since state pot

[4] Hilborn, R., et al. "Evaluating the sustainability and environmental impacts of trawling compared to other food production systems." ICES Journal of Marine Science, Volume 80, Issue 6, August 2023, Pages 1567-1579.

[5] 141,000 mt available estimated using 2024 NMFS specs for Area 630 pollock, CGOA arrowtooth, flathead, and shallow flats, CGOA Rockfish Program allocations and Trawl Cod.

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cod fisheries have no observer coverage requirements. This resulted in an extremely low PSC take of just 112 Tanner crab by pot gear GOA-wide in 2020.[6]

In addition, COVID had a dramatic effect on the fisheries 2020 PSC data since monitoring requirements were waived. Observer waivers were issued for the partial coverage sector to prevent observers from spreading COVID across the industry as they moved across communities and vessels for deployment. NOAA issued these partial coverage observer waivers from March 26, 2020 through April 19, 2020. The waiver was extended for all fishing ports except Kodiak starting from April 20 until June 28, 2020. One trawl vessel opted to take an observer and on a single trip set an extremely high rate of Tanner PSC. Given the absence of other partial coverage trawl data in the system for NPT and PTR gear, the PSC estimate for all fishery targets and gear types for the entire year was 623,057 Tanner crab in the CGOA in 2020 (Table 16). Of this amount, 93% was taken in the first half of the year when the waivers were in place. The PSC data from 2020 are clearly biased outliers due to the waivers.

When focused on the PSC data for only 2021 – 2023, which captures both present fishing activity and robust observer coverage within the two statistical areas for the first six months of the year, it shows less than 10,000 Tanner crab taken each year. Compared to the total Tanner crab abundance of 77.7 million crab to 121.8 million crab around Kodiak Island, just 0.008% - 0.013% is taken as PSC.

Observer & EM Coverage: The partial coverage sector monitoring requirements are based on the available budget to set target rates by gear type each year and increase target rates for PSC limited fisheries. In 2023, the long-awaited Partial Coverage Cost Efficiencies Analysis was completed providing the best available analysis of the data we use to manage our fisheries; the findings of that analysis have been implemented in the 2024 Annual Deployment Plan (ADP)[7] based on extensive collaboration between the Observer Program, Alaska Region, and a wide range of stakeholders through the intensive Partial Coverage Fisheries Monitoring Advisory Committee and Council process. The rates reported in Table 18 for Trawl CVs and Pot CVs are representative of the annual selection rate based on NMFS budget; not because vessels are avoiding these areas when they are required to carry an observer.

When the 2022 Observer Program Annual Report was presented to the Council in June 2023, it did not show an observer effect for trawl gear. However, it is important to note that the Annual Report exhibited multiple problems for pot-gear Electronic Monitoring (EM). Page 40 of the 2022 Observer Program Annual Report states[8]:

- "*More negative data quality impacts are possible in higher bycatch pot fisheries (e.g., Pacific cod) as it is harder to count high numbers of items quickly. This can result in lower ratings for data quality, image quality, and video completeness.*
- *Catch handling that is inconsistent with VMP is a common problem with pot gear. Crew catch handling is impacted as crew must clear each pot and process catch prior to the next pot coming onboard. Organisms also must be handled in such a way that allows a view and/or count by the video reviewer. This may slow fishing efforts but must be done to comply with VMP.*
- *Bias might exist towards pots with lower catch if reviewers move past pots where organisms cannot be counted and only review pots that can be counted. Once a pot is successfully counted, the intended sample frame is resumed."*

Since the Fixed Gear EM program is used for **catch accounting**, these potential biases can have significant data impacts on the reliability of PSC estimates. Under this lens, the seemingly high proportion of EM trips by Pot CVs in the key statistical areas should not be interpreted as equating an equal measure of reliability in the PSC estimate. In direct contrast, the EM pelagic pollock program, which will be a regulated program beginning in 2025 is a **compliance monitoring** program; this means that the camera ensures maximized retention where all catch, including all PSC are fully

[6] *Data from NMFS Catch Accounting via Data Request. December 28, 2023. 2020 Tanner PSC for pot gear was 112 tanner crab for CV/CP combined, and both state and federal fisheries. Although this data is GOA-wide, it is generally expected that the majority of tanner PSC occurs around Kodiak.*

[7] *2024 Annual Deployment Plan for Observers and Electronic Monitoring in the Groundfish and Halibut Fisheries off Alaska. NOAA Fisheries. November 2023.*

[8] *North Pacific Observer Program 2022 Annual Report. Page 40. FMA Division Alaska Fisheries Science Center and Sustainable Fisheries Division, Alaska Regional Office. May 2023.*

retained. Since all vessels must leave their system on 100% of the time, 100% of the hauls are recorded and reviewed with any discards marked, there is strong reliability that all crab is delivered to and accounted for at the shoreside processor who is required to record all landed catch, including crabs. Full retention requirements coupled with video review to verify full retention, ensure the eLandings tanner crab counts in pelagic pollock TEM deliveries are reliable. Although eLandings is not currently used for tanner PSC estimates, it is another available data source that could be used to compare actual landed crab to the official PSC estimates as a groundtruth.

During the pollock trawl EM Exempted Fishing Permit (EM EFP), GOA pollock harvest that is monitored by EM has been around ~50% a year, and vessel participation in the GOA has significantly increased. With the expansion to additional vessels, as of 2024, all but five GOA trawl vessels will be participating in the EM program. Although EM can currently only be utilized on pelagic pollock trips, AGDB continues to work towards the next step of the availability of 100% EM monitoring for all GOA trawl harvest. We are preparing for the second year of our NFWF-funded pilot project implementing EM in the Central GOA Rockfish Program (RP), which allocates rockfish, sablefish, and pacific cod where vessels use both pelagic and non-pelagic gear, with an EFP tentatively scheduled to begin in 2025. Together with our Agency partners, our vessels and processors, the trawl industry continues to do our part in ensuring sound data to manage our fisheries.

Conclusion

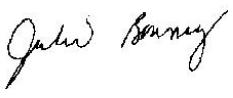
The last time the Council considered similar action items for GOA Tanner Crab in 2018, it was ultimately dropped. At that time, the discussion paper[9] also referenced the 2017 "CGOA Crab Protection Measures" discussion paper when it stated, "*The factors constraining crab stock recovery in the GOA are likely complicated. Through the accumulation of indirect protections, and finally through the direct protections put in place by the Council, Tanner crab in the GOA are less affected by the activity of the groundfish trawl fleet than they would be in the absence of those measures. Nevertheless, it is not well understood how important trawl bycatch is relative to other factors in the environment that may be limiting recovery of the stock and resumption of a stable and profitable Tanner crab fishery. Areas south of Kodiak, specifically statistical areas 525702 and 525630 show concentrations of Tanner crab from the ADF&G survey, as well as a relatively high degree of groundfish gear use. Since 2014, however, trawl gear modifications should be associated with reduced impacts to crab and crab habitat throughout the Central Gulf.*"

All Tanner crab stocks are cyclical, but since that 2018 discussion paper was written, we have now seen three consecutive years of profitable commercial Tanner fisheries in Kodiak. The majority of the abundance and commercial harvest continues to be from those two primary statistical areas; despite that both pelagic and non-pelagic trawl vessels continue to operate there. It is not difficult to surmise that improved monitoring programs and trawl gear modifications have fulfilled their intended goal, while decades of static closures have not.

The scientific evidence does not show a problem and thus we believe that the Council should drop this action from further consideration.

Kodiak needs both a healthy Tanner crab stock and fishery, plus robust trawl harvests to support our island's fishery-dependent economy. Thank you for the opportunity to comment.

Sincerely,



Julie Bonney
Executive Director
Alaska Groundfish Data Bank

[9] *Groundfish Fishery Effort and Observer Coverage Relative to Statistical Areas of Interest for Tanner Crab in the CGOA. Page 2. NPFMC. 2018.*

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