



May 31, 2024

Ms. Angel Drobnica, Chair
North Pacific Fishery Management Council
1007 West Third, Suite 400
Anchorage, AK 99501

RE: Comment on Agenda Item D1 Unobserved Fishing Mortality Workgroup report

Dear Chair Drobnica 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 (BSAI) Crab Rationalization Program. We appreciate the opportunity to comment to the Council on agenda item D1 – Unobserved Fishing Mortality Working Group report.

We appreciate the SSC's 2023 request and Council's endorsement of establishing an Unobserved Fishing Mortality Working Group (UFMWG), including the development of objectives and desired end products from the UFMWG (Figure 1). We commend the UFMWG participants for their time and dedication on the working group (WG) that held four meetings in November and December 2023. The UFMWG report is an important first step in recognizing the potential importance of unobserved fishing mortality (UFM), estimating UFM for stock assessments, and the identification of data needs and UFM research priorities to move forward. With this report and agenda item coming in front of the Council, we note that the report would benefit from full SSC review which has not yet occurred.

The Council-approved objectives of the working group are as follows:

- *Identify data sources, major data gaps, and assumptions to estimate unobserved mortality for stock assessments and to better understand temporal/spatial extent across fisheries and gear types.*
- *Provide research priority recommendations and/or needed research projects.*

The anticipated products include:

- *Framework for estimating unobserved fishing mortality and explicitly incorporating estimates into stock assessments.*
- *Report on specific research priorities and data needs.*
- *Recommendations for approaches to investigate spatial/temporal extent of unobserved mortality over fisheries and gear types to the extent practicable.*

Figure 1. Council motion on Agenda item C1, June 2023, outlining objectives and anticipated products for the Unobserved Fishing Mortality Working Group.

The WG was systematic with their chapters in the report, starting out with their summary of unobserved mortality as a function of gear type and laying out the multiple assumptions, uncertainties, and tools to estimate UFM. Next, the UFMWG identified a framework for incorporating UFM into stock assessments,

that would be separate from natural mortality, but the WG advised that most of the data to inform these approaches does not yet exist. The next chapter, fittingly, highlights UFM-specific research priorities along with future recommendations. The key takeaways here being that an arbitrary accounting of UFM incorporated into natural mortality within the stock assessments is a highly uncertain and uninformed estimation of the impact that fishing gears could be having on crab stocks. Yet, field research is needed to inform such estimates, particularly for gear types having a large bottom contact area and high lethality. We're pleased to see that the Council acknowledges that fishing gears may be having adverse effects on crab and crab habitat. And we hope the Council will take the appropriate next steps to ensure collaborative field research happens and then incorporate data into the stock assessments. But not stopping there, we hope the Council will also address management actions to reduce bycatch, including unobserved fishing mortality, such as including estimates of UFM in prohibited species catch (PSC) limits and in creating protected areas to reduce UFM in key areas and crab life stages.

In the meantime, while field experiments to quantify UFM associated with different gear types are in development or underway, the Council and any future UFMWG meetings would benefit from an in-depth literature review, local knowledge, and expert opinions, particularly regarding lost pots. The WG assigned a score of medium lethality, despite all pots being required to have biodegradable cord that breaks down in a short period of time. We would argue that this information would benefit from fishermen's input and gear experts and researchers as well. There have been studies in Alaska and Canada, including multiple reports to the Board of Fish with results from "rot cord" studies. Lastly, agenda item D5 (research priorities) will be in front of the Council at this meeting and would be a prime opportunity to identify UFM data gaps as the Council's top research priority.

Thanks for considering our comments.

Sincerely,



Jamie Goen
Executive Director
Alaska Bering Sea Crabbers