



BERING SEA FISHERIES RESEARCH FOUNDATION
23929 22ND DR SE BOTHELL, WA. 98021
FORGING COOPERATIVE RESEARCH PARTNERSHIPS IN THE BERING SEA

September 29, 2023

Dr. Sherri Dressel, and Dr. Franz Mueter – Co-Chairs
Scientific and Statistical Committee, NPFMC
1007 West Third, Suite 400
Anchorage, AK 99501

RE: C1 – BSAI Crab Specifications and related issues

Dear Dr. Dressel, Dr. Mueter, and SSC Members,

The Bering Sea Fisheries Research Foundation (BSFRF) is a non-profit research foundation formed in 2003 by voluntary participants within the Bering Sea crab industry. Our ongoing mission is to conduct or support collaborative research to improve scientific understanding and management of Bering Sea crab stocks. The crisis is continuing for BSAI crab stocks and the research we coordinate with stakeholders is continuing to be difficult. As we enter the current fall management period for these stocks our comments are brief with a few points we'd bring to your attention, a couple of questions we'd pose, and a brief summary of what's next for our research.

Stock Status Specs

For each of the three main shelf stocks (BBR, BSS, and BST) the primary challenge for stakeholders is to make sense of the blend of information each summer and fall from survey results, model outcomes, and management choices. During the recent period with economic stress, closed seasons, and continuing low levels for these stocks, this difficulty is greatly amplified. In particular, the focus to simplify and stabilize models, address variability in survey results, and provide clarity toward decision points is something we greatly value and support. But there is a lack of a 'clear narrative' on where we are and how we move through this period. We would note that for stocks that are considered data-rich (Tier 3) but are considered for tier demotion or mixed with lower tier methods the assessment process creates more confusion. The distinctions between methods and some mixing of details makes it more difficult to understand and communicate the reality through the final status determination and the management outcomes. There are many other details to continue digging further into, including stock structure, maturity indices/management 'currency,' refinement of ecosystem indicators, and some of our priority research areas. We commend the assessment authors, survey teams, and other peers for their work toward improvement, but we need to ask for further help. We would suggest that something like a "Crab Specs Narrative" could be helpful to document recent history since model development has come online. We know that parts of this exist, but an effort to collate information for more complete sharing would be very helpful. As a corollary, we are currently cataloguing available data from our own recent history of research with a summary of that work to share soon.

Questions

We would highlight a few questions for SSC consideration, noting that there is research occurring or pending for some of these focus areas and we are interested in feedback as we update our research priorities:

- How do we move toward a more 'crab-specific' system overall, rather than borrowing from assessment methodologies which have been developed for fish stocks?

- How do we address some fundamental changes in management metrics (F35 v. F?, maturity indices, legal v. retained sizes, etc.) without further stress or ‘shocks to the system’ (*management system*)?
- Are there immediate options that lie outside of the assessments that haven’t been addressed yet that could help with management options?
- What research could we conduct with crab industry people and boats that we haven’t considered yet?
- As the ecosystem and stock distributions change, and climate impacts are being realized, what types of focused research can we be collaborating on (e.g. NBS/*opilio*, survey boundaries, etc.)?
- As we see marginal signals in stock recovery from closures, how can the crab Foundation help with further research on all sources of environmental and fishing impacts on crab?

Research Areas

BSFRF is continuing with our collaborative research through the current period. New research fund sources for us are coming online now. Our priority research is continuing with a focus on filling information gaps, and using available crab industry vessels and people to conduct the research. To that end, our research capacity is expanding. We recently provided an update on the latest BBRKC Collaborative Pot Sampling ([CPS1](#)) to the CPT with a summary document available to share soon. Our working plans are to complete a CPS2 (second) project likely similar in scale but with an added sampling (*Nephrops* trawl) component. A CPS2 operational plan, building from the CPS1 summary, is being drafted now, and we can likely provide an update to the SSC in December. Further, we are considering *opilio* focused plans for next year as a pilot *opilio* pot sampling (POPS) project conducted along portions of the shelf-slope margin, to be coordinated during summer research. Additional plans for tagging of crab are also upcoming (NPRB-funded, summer survey, others) that will be mostly separate from CPS plans. We are considering an *Opilio* Focused Workshop, regarding which we’ll be sharing more details very soon. We are looking forward to further supporting and progress on the Tanner Crab PhD (M. Heller-Shiple, UW) that is currently underway and which focuses on several *bairdi* research areas. Lastly, we will be submitting input for the Council’s request for Research Priorities very soon with some renewed focus on climate/ecosystem issues, maturity indices, seasonal distribution and boundaries, bycatch and fishing gear impacts, juvenile life history and habitat linkages, and others. We are flexible, open to feedback, and interested in new collaborative research opportunities to help the crab industry stay on its feet.

In summary, the context and outlook for managing BSAI crab stocks is difficult, unstable, and it may get worse before it gets better. The industry is struggling with how to survive, how to be supportive of research, science and management, and to remain hopeful. Coordinating our research efforts with all of our partnerships including the SSC, CPT, and others is critical.

Thank you for your time, feedback, and consideration of our input.

Sincerely,



BERING SEA FISHERIES RESEARCH FOUNDATION
 Scott Goodman
 Executive Director