



January 28, 2022

Dr. Sherri Dressel, Chair
Scientific and Statistical Committee
North Pacific Fishery Management Council
1007 West Third, Suite 400
Anchorage, AK 99501

RE: Comment on Agenda Item D5 (EFH Distribution and Fishing Effects Model)

Dear Dr. Dressel and members of the SSC:

The Alaska Bering Sea Crabbers (ABSC) is a trade association representing 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. As crab industry stakeholders, we support the ongoing work that the Bering Sea Fisheries Research Foundation (BSFRF) is leading, with state and federal crab researchers, on a variety of projects related to crab essential fish habitat (EFH). We know crab EFH issues are complicated, blending research, fishery data and best available science to improve knowledge and resolution of critical habitat to improve management measures – but now more than ever, increased attention to crab is needed. We appreciate the opportunity to comment on Agenda Item D5 - EFH Distribution and Fishing Effects (FE) model. Our previous [comments under Agenda Item B3 at the April 2021 Council meeting](#) are incorporated here by reference.

Alaska's big three Bering Sea crab stocks (Tanner, snow, and Bristol Bay red king crab) are at historic lows. As one of Alaska's most iconic fisheries, not to mention one of the highest valued fisheries, we urge the Council's Scientific and Statistical Committee (SSC) to be more proactive in ensuring sound science for conservation and recovery of our crab populations, both for the crab stocks and for the fishing communities that rely on them. One way to help Alaska's crab stocks is through better understanding of EFH and important areas for all life stages of crab, quantification of the impacts of fishery-specific fishing gear on crab habitat, and integration of additional data sources into the FE model to better protect habitat, when and where needed.

The lack of recent EFH-related management actions for crab based on known and new information requires attention. The Council was alerted in October 2021 that snow crab is overfished and that Bristol Bay red king crab (BBRKC) is at a level of serious conservation concern. Given that and given the EFH work since 2012 that flagged several concerns and protections for Eastern Bering Sea (EBS) crab stocks that have not yet been addressed through management action, we recommend that the Council prioritize EFH considerations for snow, Tanner, and BBRKC. It's imperative to update information that has become available through research since the 2017 EFH Review, and to incorporate new sources of available information or potential partnerships for outside data collection, including updates on the recommendations from the 2012 discussion paper on BBRKC EFH and on the importance of fishing impacts in localized areas as flagged in the previous FE model work. We are aware of some parts of this through BSFRF and other research efforts we are attentive to, but Council efforts to focus this in a meaningful way for crab stocks in the EFH update are critical.

We recommend that future FE models and EFH description efforts incorporate crab maturity data collected via EBS summer bottom trawl surveys, observer data, and any potential maturity data to come from additional (winter or other) surveys, and to run separate individual models for both immature and mature life stages of Alaska's crab stocks. The next EFH 5-year review should apply these crab maturity data, regularly collected on bottom trawl surveys and include other sources, to inform life stage species-specific distribution models for the BSAI king and Tanner crabs fishery management plans. Additionally, these efforts should include collaboration with scientists from the BSFRF, NOAA's Alaska Fisheries Science Center, and the Alaska Department of Fish and Game, and with fishermen, all of whom have crab size measurements and maturity data. These data could be used to map crab catches and observations of mature and immature life stages spatially and temporally in the EBS. Thus, providing maturity dependent spatio-temporal descriptions and maps of crab-specific critical habitat.

In addition to collecting the afore mentioned maturity data by species, this information should be further developed to improve crab species-specific EFH understanding for habitat areas of particular concern; important mating grounds, nursery habitats, and how management decisions affecting nearshore and coastal nursery habitats may affect fishery productivity and the long-term health of these stocks. We know from the published literature that some early juvenile life stages of crab settle in nearshore areas that may not be represented in current survey data. For example, some BBRKC habitat, such as Southern and Southwest Bristol Bay, is much more important for spawning success than others and should be considered for prioritized evaluation as habitat impacts from fishing are high in that area. The EFH authors and CPT noted that future efforts need to assess the importance of smaller local habitat scales on overall stock health especially when you have localized areas showing greater than 50% habitat reduction even though the overall habitat reduction average is less than 10% (i.e., Southwest Bristol Bay). Additionally, these EFH descriptions would benefit greatly if the impacts of fishing activities were analyzed at a higher resolution - by fishing gear type in space and time. In other words, with maps by gear activity by 3- or 6-month periods. This would help build an understanding, for example, of potential fishing impacts on important habitat during times when crab are molting and mating. Only then could meaningful management actions be taken to ensure the protection of those critical crab habitats.

In closing, individual maturity FE models for all crab species, a habitat impacts and fishing activity by gear type, and EFH conservation measures with adaptive spatio-temporal management is more important now than ever for crab given changing ocean and climate conditions and the poor status of the stocks. For BBRKC, EFH and habitat protections for different life stages is especially important, given these crab stocks are at a level of serious conservation concern – a fact that is more troubling because Alaska's king crab stocks show little resilience and historically have been very difficult to build back from low levels. Additionally, snow crab stocks were thought to have been more resilient to fishing impacts as previously assessed under EFH but may be less so now given their low abundance levels and overfished status paired with changing ecosystems, changing climate, and ocean acidification. We need to proactively consider EFH protections and management actions that help build resilience across all crab stocks.

ABSC asks that the Council and the Council's SSC be proactive to help slow the decline of Alaska's commercially important crab stocks. We recommend that the highest priority actions for BSAI crab stocks in the Council arena focus on spatio-temporal management of all maturity stages for crab, identification of critical areas for these different life stages and crab-specific EFH conservation, and higher resolution of spatial and fishery-specific impacts by gear type on crab EFH. The Council should be leading to build more resilient crab stocks in the face of climate change and ongoing fishing impacts. Let's help this commercially and culturally important iconic species for Alaska rebound using the tools and information we have and continue to find ways to collect and incorporate additional data.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Goen', with a stylized flourish at the end.

Jamie Goen
Executive Director
Alaska Bering Sea Crabbers
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