



BERING SEA FISHERIES RESEARCH FOUNDATION  
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 FORGING COOPERATIVE RESEARCH PARTNERSHIPS IN THE BERING SEA

December 4, 2016

Dr. Farron Wallace (Chair, NPFMC Science and Statistical Committee)  
 Alaska Fisheries Science Center, NMFS/NOAA  
 7600 Sandpoint Way NE  
 Seattle, WA 98115

RE: C8 EFP for flatfish fishing inside Red King Crab Savings Area (RKCSA)

Hello Dr. Wallace and SSC members,

The Bering Sea Fisheries Research Foundation (BSFRF) is a non-profit research foundation formed in 2003 by the Bering Sea crab industry to help improve the science and sustainability of Bering Sea crab stocks. Our work has been primarily funded by voluntary industry-sponsored support (both the harvesting and processing sectors) and conducted as cooperative research partnering with NMFS, ADF&G and several other researchers. One of our "best practices" learned through several years of cooperative research is working in a transparent manner to share results and communicate about our research. Importantly, we are also attentive to other cooperative research focused on Bering Sea groundfish fisheries which may impact the management of Bering Sea crab stocks. BSFRF recognizes that the accurate specification of red king crab bycatch levels (PSC limits) both spatially and temporally in Bristol Bay is an important component of BBRKC annual assessment.

BSFRF is encouraging the Alaska Seafood Cooperative (AKSC) Amendment 80 Exempted Fishing Permit (A80 EFP) project to defer fishing under a potential EFP in 2017. The BSFRF Board has strong concerns about further risks posed by EFP fishing activity due to current Bering Sea crab stock status and any further risk to current protections afforded to the RKC pot fishing grounds in and around the Red King Crab Savings Area (RKSCA) until more information is available. Our concerns have been shared with AKSC and Mr. John Gauvin and we are working toward a compromised solution if possible. The BSFRF is interested in working toward a collaborative survey effort conducted in the late winter 2018 (Jan-Apr 2018) before any A80 EFP fishing inside the RKCSA. Efforts to plan a collaborative approach would include a close review of current bycatch information and assessment of what is currently known about the habitat within the RKCSA.

BSFRF has closely reviewed the revised application from Mr. John Gauvin and acknowledges the revised EFP application is improved over last year and has incorporated a statistical review (power analysis) that better informed some experimental design elements and expected EFP outcomes. A more accurate understanding of potential effort (# tows) in the area of interest has helped with understanding where bottom trawling tows may occur in sensitive crab areas. In the context of improving the application, we also acknowledge the further work required to respond to SSC questions and other questions BSFRF posed earlier this year. We appreciate the transparency regarding the EFP experimental objectives and how those may be approached.

Our concerns for 2017 A80 EFP fishing are based on two primary issues: 1) the recent trends in the abundances of the three Bering Sea Crab stocks are declining strongly, and 2) recently available annual maps of RKC pot fishing effort shows the relevance of the RKCSA during the time of the targeted crab fishery, especially in warm water years. We recognize some uncertainties with both issues but both are based on data and are strongly influencing our perception of greater risks facing crab stock status and the health of the crab industry.

NMFS surveys from the summer of 2016 reflect further downward trends of abundance of the three primary commercial Bering Sea stocks (BBRKC, opilio and bairdi) and subsequent TACs derived from survey and model results are 43% less than a year ago for the three stock total (70 million lbs dropping to 40 million lbs). Since 2014, the three-year trend in allocations drawn from NMFS survey abundance and model results for the same three stock total are amplified even more (-57%, 93 million lbs down to current season 40 million lbs). While the substantial declines are mostly reflected in opilio and bairdi stocks, the BBRKC trend is also downward and there is low abundance of juveniles and persistent weak recruitment. The outlook for 2017 NMFS surveys of crab on the Bering Sea shelf is uncertain, especially in the current marine climate of enduring warm bottom waters.

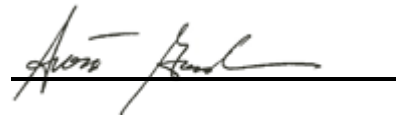
BSFRF supported recent efforts to retrieve and review CPUE information for Bristol Bay RKC Daily Fishing Logs (DFLs) as part of a graduate student dissertation (L. Sloan, UAF). The data from 2005 to 2015 from the DFLs has been compiled and plotted as part of a hot spot analysis. The preliminary results from hot spots as identified in the analyses show that seasonal high CPUE areas for RKC fishing are both inside and outside the closed area. Furthermore, the annual average geographic center of the directed pot fishery weighted by CPUE (or centroid) for each year, 2005 to 2015, falls within the boundary of the RKCSA. In the warm years however, the high CPUE effort appears to be focused closer to the middle of RKCSA. For the 2 recent warm water years, 2014-2015, hot spots are within the closed

portion of the RKCSA and for the 2 recent colder years, 2012-2013, the hot spots also extended into the adjacent Area 512. Coincidentally, the 10 minute strip at the lower end of the RKCSA is an area of low CPUEs in all 4 recent years. If this holds for 2017 one could expect a much higher bycatch rate in the northern portion of the RKCSA compared to the bottom 10 minute strip. In brief, the preliminary work completed by Ms. Sloan shows that the RKCSA is well located for at least the legal male RKC during the time of the targeted commercial pot fishery (Oct 15-Nov 15) and, at most, well located for a protection area covering some uncertainties of juvenile and female RKC distributions at other times of the year.

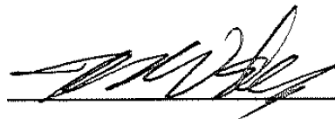
Our goal is to work collaboratively with AM80 stakeholders within a larger effort to update and accurately specify bycatch measures for crab in the Bering Sea. We believe that a more comprehensive and cooperative approach that could be funded in part by the crab industry as well as A80 and other sectors would align more closely with the Council's objectives and renewed approach to address crab bycatch. We understand and share the interest to conduct cleaner, lower impact, and sustainable fisheries – across all sectors, and believe at this time that more specific efforts toward a collaborative flatfish/crab/habitat survey are warranted for the area of interest.

Thank you for your close attention to this issue.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Goodman", written over a horizontal line.

BSFRF Executive Director,  
Scott Goodman

A handwritten signature in black ink, appearing to read "Doug Wells", written over a horizontal line.

BSFRF President  
Doug Wells