PROPOSAL 250 - 5 AAC 35.506. Area J registration. Allow full retention of legal male *C. opilio* crab incidentally harvested by vessels targeting *C. bairdi* crab in the Bering Sea District west of 166° W. long., as follows:

5 AAC 35.506(j) should be amended to read (new language in bold): "In the Bering Sea District, a vessel operator that is registered to fish for C. *bairdi* Tanner crab west of 166° W. long. may also retain **all legal male** C. *opilio* Tanner crab **taken incidentally during normal western C. *bairdi* Tanner crab commercial operations** [IN AN AMOUNT NOT TO EXCEED FIVE PERCENT OF THE WEIGHT OF C. *BAIRDI* TANNER CRAB ON BOARD THE VESSEL AND REPORTED ON AN ADF&G FISH TICKET]."

What is the issue you would like the board to address and why? As currently outlined in regulation, vessel operators targeting western C. *bairdi* Tanner crab are only allowed to retain C. *opilio* Tanner crab in an amount not to exceed five percent of the weight of C. *bairdi* crab on board the vessel and reported on an ADF&G fish ticket. This regulation was originally adopted as a way for managers to accurately record effort and landings and to ensure that commercial vessel

operators were using the appropriate gear type for the crab species they were targeting. Today, not only are vessels required to register for an individual target crab species, the pot gear used (with specifications codified in regulation) to target western C. *bairdi* crab is different from the pot gear used to target C. *opilio* crab. Pot gear used for targeting C. *bairdi* crab has a larger mesh size and larger escapement rings than pot gear used for targeting C. *opilio* crab. The naturally smaller C. *opilio* crab have an increased ability to escape from C. *bairdi* pots. Regulated gear specifications by target species, resulting in the physical difference in the pot gear used, aids managers in their ability to distinguish between and track the effort of vessels targeting western C. *bairdi* crab versus those targeting C. *opilio* crab, irrespective of the fact that these fisheries occur in both an overlapping geographic area and overlapping timeframe. But because of these overlaps and the biological similarity of the two species, vessels targeting western C. *bairdi* crab do incidentally harvest C. *opilio* crab as part of their normal fishing operations. If a vessel operator has an adequate amount of C. *opilio* crab individual fishing quota (IFQ) available, that operator should not be incentivized by regulation to discard *any* incidentally taken legal male C. *opilio* crab.

The rigidity found in an unnecessarily low incidental retention level is currently working in direct opposition to the management goal and objective of continued species conservation. One of the original (and continuing) goals of the Crab Rationalization Program outlined in the 2004 Final EIS focused on the need for reduction of bycatch and its associated mortality. Additionally, National Standard 9 states that "*Conservation and management measures shall, to the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch."* It is the minimization of bycatch mortality that is of concern. Over the past few years, survey and stock assessment information have indicated significant growth in the C. *bairdi* Tanner crab population. With a continued increase in this population (and available TAC), vessel operators with both C. *bairdi* and C. *opilio* IFQ have had to make significant adjustments to their commercial fishing operations. Because the current western C. *bairdi* season closes six weeks sooner than the C. *opilio* season, early months normally spent targeting C. *opilio* crab are now spent targeting C. *bairdi* crab. However, these two crab species are significantly co-mingled together making it difficult for vessel operators to completely avoid C. *opilio* when targeting C. *bairdi*. Regulations that incentivize full and efficient use of the crab resource will work to minimize unnecessary and wasteful mortality to this population whereas the current incidental regulation creates a disincentive for such usage. Data on both directed catch and discard amounts (and their associated mortality rate) for a species are incorporated into annual stock assessments and can negatively impact population estimates, future population projections, and future total allowable catch (TAC) amounts. These discards of legal male C. *opilio* crab during the C. *bairdi* crab target fishery will be directly targeted and harvested at a later time. This results in compounded mortality calculations being incorporated into the C. *opilio* crab stock assessment because of the mortality associated with: 1) when a crab is taken as incidental catch; 2) when a crab is taken as directed catch; and 3) when a crab is taken as both incidental and directed catch.

If the current incidental harvest limit for C. *opilio* crab is retained, discards and their associated mortality will likely increase as the overlap and species interaction between C. *bairdi* crab and C. *opilio* crab increases. Available data may not seem to indicate that harvesters targeting C. *bairdi* crab are actively retaining C. *opilio* in amounts that approach the current 5% incidental limit, it is important to recognize that this is information is generally presented in aggregate across the fleet. Such aggregate data masks the fact that on an individual level, vessels do encounter large numbers

of C. *opilio* crab on the grounds during their western C. *bairdi* crab operations. Unfortunately, on an individual catcher vessel basis, a 5% (by weight) incidental catch limit is too small to effectively manage during fishing operations and vessel operators would rather discard their incidental catch than risk a penalty for exceeding the regulated limit.

One of the many benefits outlined and achieved with implementation of the Crab Rationalization program was improved resource conservation such that previously depleted stocks have been able to recover to healthy and sustainable levels. However, healthy populations of multiple, overlapping crab stocks now necessitate more flexibility for harvesters targeting those stocks so that unnecessary discards and mortality are not incentivized in direct opposition to the conservation benefits achieved. This flexibility will provide for increased efficiency in operations for harvesters. Allowing the greatest maximum retention of all legal male crab species harvested will result in fewer pots being hauled throughout the season, which not only lessens the amount of time spent on the water while increasing CPUE, but it has the added benefit of increasing crew safety by decreasing the amount of time spent handling pot gear. Further, this flexibility will work to maximize deliveries of crab to coastal communities, especially to the community of St. Paul. This will result in increased fish taxes, business taxes, and other fees (i.e., fuel sales and supplies), which are a critical source of revenue not only for coastal communities, but for the State of Alaska.

PROPOSED BY: Alaska Bering Sea Crabbers; Central Bering Sea Fishermen's Association; and the City of St. Paul (HQ-F16-017)

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PROPOSAL 251 - 5 AAC 35.510. **Fishing seasons for Registration Area J.** Change season closure date from March 31 to April 15 for *C. bairdi* Tanner crab in waters west of 166° W long., as follows:

5 AAC 35.510(f)(1) should be amended to read: "male C. *bairdi* Tanner crab **east of 166° W long.** may be taken from 12:00 noon October 15 until 11:59 p.m. March 31. **Male C. *bairdi* Tanner crab west of 166° W long. may be taken from 12:00 noon October 15 until 11:59 p.m. April 15**;"

What is the issue you would like the board to address and why? As it is currently written in regulation, the season closure date for C. *bairdi* Tanner crab in the Bering Sea District is March 31. This date was originally established as a way to protect molting and mating C. *bairdi* crab throughout the Eastern Subdistrict during the spring. Unfortunately, this date is based upon limited information and data for C. *bairdi* crab as determined in the Gulf of Alaska and not the Bering Sea. Applying the March 31 season closure date to both the eastern (EBT) and western (WBT) populations of C. *bairdi* Tanner crab in the Eastern Subdistrict unnecessarily restricts commercial harvesters targeting western C. *bairdi* Tanner crab. Regulations that incentivize full and efficient use of the crab resource will work to diminish wasteful discarding and unnecessary mortality. In order to allow commercial crab harvesters the opportunity to target western C. *bairdi* in the best and most efficient manner possible, while also minimizing potential negative impacts during a biologically sensitive life history period, the season ending date for C. *bairdi* Tanner crab (west of 166° W long.) should be extended to April 15.

While the western C. *bairdi* Tanner crab fishery had been closed since the 2008/2009 fishing season, commercial harvesters targeting this stock over the past several seasons (2013/2014, 2014/2015, 2015/2016) have now been encountering significant co-mingled populations of clean, legal-size C. *bairdi* and C. *opilio* during the course of their normal fishing operations for either species. With an increasing C. *bairdi* population (and increasing TAC) and a continued healthy population of C. *opilio*, vessels targeting western C. *bairdi* encounter high numbers of C. *opilio*. And when these same vessels make the conversion to target C. *opilio* after March 31, they continue to encounter high numbers of C. *bairdi* because of the geographic overlap and the biological similarity of these two species. Because the current western C. *bairdi* season closes six weeks sooner than the C. *opilio* season, early months of each season that had previously been spent targeting C. *opilio* crab are now spent targeting C. *bairdi* crab. However, a shorter season length in conjunction with currently restrictive incidental harvest limit regulations is causing vessels to unnecessarily discard incidental catch of legal male C. *opilio* crab during the early months of the season, which results in wasteful handling and discard mortality for this population. Such data is incorporated into annual species stock assessments and can negatively impact population estimates, future population projections, and future total allowable catch (TAC) amounts.

Commercial harvesters recognize and appreciate that the protection of sensitive mating and molting periods is one of the most basic and fundamental ways to conservatively manage crab stocks. As such, the actively avoid these periods during the course of their fishing operations (i.e., fishing at greater depths to avoid shallower areas where molting and mating is thought to occur). The federal King and Tanner Crab FMP states that fishing seasons are used to protect crabs during the molting and mating portions of their life cycle and that closed seasons are set to maximize the reproductive potential of crab populations; however, the FMP also states that king and Tanner crab seasons may be combined to minimize handling mortality, to maximize efficiency, and to reduce unnecessary administrative and enforcement burdens. The FMP states that seasons may also be combined when a given species is taken primarily as an incidental catch and it acknowledges that the specification of fishing seasons is important in achieving biological conservation, economic and social, vessel safety, and gear conflict objectives. For commercial harvesters, there is a need to strike a balance between unnessecary and wasteful mortality to one crab population with the minimal potential for fishery impacts to the sensitive life history period of another population.
If the current season closure date for C. *bairdi* crab is retained, discards and their associated mortality will likely increase as the overlap and species interaction between C. *bairdi* crab and C. *opilio* crab increases. One of the many benefits outlined and achieved with implementation of the Crab Rationalization program was improved resource conservation such that previously depleted stocks have been able to recover to healthy and sustainable levels. However, healthy populations of multiple, overlapping crab stocks now necessitate more flexibility for harvesters targeting those stocks so that unnecessary discards and mortality are not incentivized in direct opposition to the conservation benefits achieved. This flexibility will provide for increased efficiency in operations for harvesters by reducing the need for operators to focus solely on C. *bairdi* earlier in the season and by allowing the greatest maximum retention of all legal male crab species harvested. This will result in fewer pots being hauled throughout the season, which not only lessens the amount of time spent on the water while increasing CPUE, but it has the added benefit of increasing crew safety by decreasing the amount of time spent handling pot gear. Further, this flexibility will work to increase the efficiency of deliveries of crab to coastal communities, especially to the community of St. Paul. This will result in increased fish taxes, business taxes, and other fees (i.e., fuel sales

and supplies), which are a critical source of revenue not only for coastal communities, but for the State of Alaska.

PROPOSED BY: Alaska Bering Sea Crabbers; Central Bering Sea Fishermen's Association; and the City of St. Paul (HQ-F16-018)

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PROPOSAL 252 - 5 AAC 39.645. Shellfish onboard observer program. Allow a vessel carrying an onboard observer to rig, bait, and set gear for a new crab fishery before fully exiting the crab fishery for which the observer was briefed, as follows:

5 AAC 39.645(e) should be amended to read, "In addition to the permit requirements in 5 AAC 34.055 and 5 AAC 35.055, the permit for a vessel that **catches or catches and** processes Tanner crab, red king crab, blue king crab, or golden king crab must require that an observer, approved by the department and provided by the permittee, be briefed by the department for the fishery in which the vessel participates [AND THAT THE OBSERVER BE ON BOARD THE VESSEL BEFORE THE VESSEL OBTAINS A TANK INSPECTION, BEFORE THE VESSEL TAKES CRAB, AND BEFORE THE START OF AND DURING ALL PROCESSING OPERATIONS]. For the purposes of 5 AAC 34.055, 5 AAC 35.055, and 5 AAC 39.140, the observer is a representative of the department. All information collected by the observer is confidential property of the department. The department shall develop guidelines for approval of observers, including training requirements, conflict-of-interests standards, data collection schedules and standards, record keeping and reporting requirements, and other criteria needed to ensure accurate and objective reporting.

What is the issue you would like the board to address and why? The briefing requirements contained in the Shellfish Onboard Observer Program outline a rigidly narrow scope for placing certified observers onboard commercial crab catcher vessels and catcher-processor vessels. Currently, prior to a commercial vessel engaging in any activity related to setting gear, hauling gear, and offloading/processing catch in a target crab fishery, that vessel must have an observer onboard that has been briefed for that specific fishery. In seeking to adjust the regulation at 39.670(c)(3)(D), commercial crab harvesters acknowledge that that change would be in conflict with the current Shellfish Onboard Observer Program in that a vessel would not be allowed to re-rig, bait, and set gear for a new target fishery because an observer for the new target fishery would not be onboard. To illustrate this point, an observed vessel seeking to re-rig, bait, and set gear for the C. *opilio* fishery at the conclusion (final haul) of their C. *bairdi* fishery prior to their offload of C. *bairdi* are prevented from doing so because their onboard observer has not been officially briefed for this next target (although this observer for the C. *bairdi* fishery may have been briefed previously for the C. *opilio* fishery) and through the processing of re-rigging and setting gear, a vessel is considered to be officially engaged in the new target fishery.

Flexibility in gear regulations for the purpose of increased efficiencies and safety also requires flexibility in the placement of observers as part of the Shellfish Onboard Observer Program. So long as a certified shellfish observer has been briefed for a specific crab fishery at some point in the current commercial season, vessels should not be operationally constrained by unnecessarily restrictive observer regulations. If this regulation (in conjunction with 39.670(c)(3)(D)) is not

modified, vessel operators will continue to waste time (i.e., increased crew hours spent tending empty gear) and money (i.e., increased fuel costs from tending empty gear) in storing and pulling open pots prior to their ability to re-rig, bait, and set those pots for their next target crab species and will be subject to an increased likelihood of incurring a major injury during the extraneous handling of pot gear.

PROPOSED BY: Alaska Bering Sea Crabbers (HQ-F16-019)

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PROPOSAL 253 - 5 AAC 39.670. Bering Sea/Aleutian Islands Individual Fishing Quota (IFQ) Crab Fisheries Management Plan. Allow a vessel participating in a rationalized crab fishery to rig, bait, and set pot gear for a new crab fishery prior to fully exiting the crab fishery for which the vessel is validly registered, as follows:

5 AAC 39.670(c)(3)(D) should be amended to read: "a vessel's crab pot gear may not be deployed unless the vessel is actively participating in harvesting the species in the applicable area; **except that a vessel participating in a rationalized crab fishery may deploy crab pot gear for another rationalized target crab fishery if all of the following criteria are met: 1) while at sea, the vessel has notified ADF&G of its intent to switch target fishery within 48 hours of the final haul for the previous target fishery; 1) gear conversion and setting occurs only during the conclusion of the haul trip for the previously targeted species, prior to offload; 2) re-rigged and baited gear is hauled within 10 days after setting; and 3) hauling of re-rigged and baited gear does not occur prior to registering for the new target fishery."**

What is the issue you would like the board to address and why? 5 AAC 39.670(c)(3)(D) is a component of the BSAI Individual Fishing Quota (IFQ) Crab Fisheries Management Plan. Under this regulation as it is currently written, a vessel's crab pot gear may not be deployed unless that vessel is actively harvesting one of the rationalized crab species in the applicable registration area. As such, when a vessel is switching between target crab species, it is prevented from re-rigging, baiting, and setting its pot gear prior to delivery and registration for its next target species (pots not aboard the vessel and rigged for the species on board must be stored in the water unbaited and open), otherwise the vessel would be out of compliance for their target fishery. This regulation is extremely inefficient from a vessel operations standpoint as it requires vessel operators to waste time (i.e., increased crew hours spent tending empty gear) and money (i.e., increased fuel costs from tending empty gear) in storing and pulling open pots prior to their ability to re-rig, bait, and set those pots for their next target crab species. Further, the inefficiencies that result from this regulation provide no biological or conservation benefit to the rationalized crab stocks (i.e., protections for juvenile and female crab are maintained through pot gear specifications maintained in regulation).

At the time BSAI Crab Rationalization was implemented, it was important for ADF&G to accurately track fishing effort under this new management program. One way of initially achieving this was through strict vessel registration and gear deployment requirements for each target fishery. Experience now shows that the multitude of economic efficiencies and benefits achieved through Crab Rationalization are being diminished through continuation of this regulation without achieving any biological, conservation, or management benefits as a balance. The major cause of

injuries aboard Bering Sea crab vessels occurs during the handling of pot gear. Regulations that result in extraneous gear interactions are in direct contrast to the multiple safety improvements achieved by this fleet through the Rationalization Program. Without adoption of the amended regulatory language as proposed below, vessel operators will be required to continue operating in an extremely inefficient manner and will be subject to unnecessary financial costs for no realized benefit to either the target crab stocks or management program. With the stipulations and conditions included in the proposed regulatory language, ADF&G will maintain their ability to effectively monitor and record fishing effort and catch data without a decrease in management effectiveness.

PROPOSED BY: Alaskan Bering Sea Crabbers (HQ-F16-021)

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PROPOSAL 254 - 5 AAC 35.521. Identification of Bering Sea Tanner crab. Amend the description of a hybrid Tanner crab so that hybrid designation is dependent upon the target Tanner crab fishery for which the vessel is validly registered, as follows:

5 AAC 35.521(c) should be amended to read: "For the purpose of 5 AAC 35.510(f)(3) and 5 AAC 35.520(b), a hybrid Tanner crab **is considered to be either a C. *bairdi* Tanner crab or a C. *opilio* Tanner crab dependent upon whichever target Tanner crab fishery the vessel is registered for and for which the vessel's pot gear is actively rigged** [THAT CONFORMS TO THE DESCRIPTION IN (a) OF THIS SECTION IS CONSIDERED TO BE A C. BAIRDI TANNER CRAB, AND A HYBRID TANNER CRAB THAT DOES NOT CONFORM TO THAT DESCRIPTION IS CONSIDERED TO BE A C. OPILIO TANNER CRAB]."

What is the issue you would like the board to address and why? *Chionoecetes opilio* crab and *Chionoecetes bairdi* crab naturally crossbreed with one another with their offspring displaying physical characteristics from both parents (species). It is understood that for the purposes of accurate catch accounting during both the directed C. *opilio* and C. *bairdi* fisheries, ADF&G needs to account for all crab landed during the course of commercial crab fishery operations. As the regulations under 5 AAC 35.521 are currently written, unless a Tanner crab displays the exact characteristics of a C. *bairdi* crab (red eyes and notched upper lip at two points with angular V-shaped cuts from an "M" shape), for catch accounting purposes all other Chionoecetes crab are considered to be C. *opilio* irrespective of whether they are a true C. *opilio* or a hybrid Tanner crab. Unfortunately, this identification regulation as currently written has the potential to result in violations for vessels that unintentionally retain hybrid Tanner crab during a season and/or in an area that is prohibited. The mixed physical characteristics make it extremely difficult to identify hybrid Tanner crab in a quick and efficient manner, especially during active fishing operations. This point is emphasized in a study by ADF&G and University of Maine researchers in which experts encountered significant difficulty in consistently correctly identifying hybrid C. *opilio* crab. This same study also noted difficulty on the part of observer trainees in correctly identifying hybrid C. *opilio*.

If this regulation is not addressed, vessel operators will likely receive unnecessary citations and penalties for possessing hybrid Tanner crabs for no conservation benefit. Hybrid Tanner crab are not accounted for in the stock assessment or harvest strategy calculations of either individual

Tanner (C. *bairdi* or C. *opilio*) crab species. Because of this, the retention of hybrid Tanner crab can be viewed as a defacto conservation benefit (savings) for true C. *bairdi* and C. *opilio* crab and should not result in punishment. The proposed change to the regulatory language outlined below allows for the continued accounting of all crab landed without unnecessarily punishing vessels for the retention of crab that are not even considered as part of either Chionoecetes population.

PROPOSED BY: Alaska Bering Sea Crabbers (HQ-F16-022)
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PROPOSAL 255 - 5 AAC 35.506. Area J registration. All full retention of incidentally taken legal male *C. opilio* Tanner crab when a vessel is participating in the *C. bairdi* Tanner crab fishery east of 166° W. long., as follows:

In the Bering Sea District, a vessel operator that is registered to fish for the C. *bairdi* Tanner crab east of 166° W long. may also retain all legal male C. *opilio* Tanner crab taken incidentally during normal eastern C. *bairdi* Tanner crab commercial operations."

What is the issue you would like the board to address and why? Over the past several commercial fishing seasons for C. *bairdi* Tanner crab (2013/2014, 2014/2015, and 2015/2016), vessels targeting eastern C. *bairdi* crab (EBT) between 166° W long. and 163° W long. have been encountering increasing amounts of clean, legal-size male C. *opilio* during the course of their normal fishing operations. Because of the geographic overlap and biological similarity of these two species, vessels targeting eastern C. *bairdi* crab do incidentally harvest C. *opilio* crab as part of their normal fishing operations. Unfortunately, because the eastern boundary limit for retention of C. *opilio* in the directed fishery is at 166° W. long., these vessels are forced to discard all incidentally harvested C. *opilio* crab when targeting eastern C. *bairdi* crab. Regulations that require vessels to discard C. *opilio* crab results in unnecessary and wasteful mortality to the population of C. *opilio* as a whole. National Standard 9 states that "*Conservation and management measures shall, to the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch."* It is the minimization of bycatch mortality that is of concern. Mortality data from both directed catch and discard amounts (in both the directed fishery and as incidental catch) for a species are incorporated into annual stock assessments and can negatively impact population estimates, future population projections, and future total allowable catch (TAC) amounts. These discards of legal male C. *opilio* crab during the eastern C. *bairdi* crab target fishery results in compounded mortality calculations being incorporated into the C. *opilio* crab stock assessment because of the mortality associated with: 1) when a crab is taken as incidental catch; 2) when a crab is taken as directed catch; and 3) when a crab is taken as both incidental and directed catch. If a vessel operator has an adequate amount of C. *opilio* crab individual fishing quota (IFQ) available, that operator should not be required by regulation to discard *any* incidentally taken legal male C. *opilio* crab.

Additionally, during the 2015/2016 commercial Tanner crab season, an unusually high number of citations were issued to vessels regarding the retention of hybrid Tanner crab. Specifically, vessels targeting C. *bairdi* Tanner crab east of 166 ° W. long. were cited for possessing hybrid C. *opilio* Tanner crab. Because these hybrid crab are considered C. *opilio* crab under current identification guidelines contained in regulation, vessels were in violation as C. *opilio* are not allowed to be

retained and possessed east of 166 ° W. long. Vessels that received citations were utilizing the proper eastern C. *bairdi* pot gear and during the course of their fishing operations, crew were taking the time to actively sort the crab. Unfortunately, the mixed physical characteristics of these crab make it extremely difficult to quickly identify hybrid Tanner crab and remove them from the retained catch for eastern C. *bairdi* crab such that these vessels are not retaining any C. *opilio* crab. This point is emphasized in a study by ADF&G and University of Maine researchers in which experts encountered significant difficulty in consistently correctly identifying hybrid C. *opilio* crab. This same study also noted difficulty on the part of observer trainees in correctly identifying hybrid C. *opilio*.

If C. *opilio* crab are not allowed to be retained as incidental catch between 166° W long. and 163° W long. during the directed eastern C. *bairdi* fishery, regulatory discards and their associated mortality will continue. One of the many benefits outlined and achieved with implementation of the Crab Rationalization program was improved resource conservation such that previously depleted stocks have been able to recover to healthy and sustainable levels. Current healthy populations of multiple, overlapping crab stocks now necessitate a re-examination of previous stock boundaries and species retention to provide harvesters with the greatest flexibility so that unnecessary discards and mortality are not mandated in direct opposition to the conservation benefits achieved. This flexibility will provide for increased efficiency in operations for harvesters. Allowing the greatest maximum retention of all legal male crab species harvested will result in fewer pots being hauled throughout the season, which not only lessens the amount of time spent on the water while increasing CPUE, but it has the added benefit of increasing crew safety by decreasing the amount of time spent handling pot gear. Further, this flexibility will work to maximize deliveries of crab to coastal communities, especially to the community of St. Paul. This will result in increased fish taxes, business taxes, and other fees (i.e., fuel sales and supplies), which are a critical source of revenue not only for coastal communities, but for the State of Alaska.

Further, if retention of C. *opilio* as incidental catch between 166° W long. and 163° W long. during the directed eastern C. *bairdi* fishery is not addressed, vessel operators will likely continue to receive unnecessary citations and penalties for possessing hybrid Tanner crab for no conservation benefit. Hybrid Tanner crab are not accounted for in the stock assessment or harvest strategy calculations of either individual Tanner (C. *bairdi* or C. *opilio*) crab species. Because of this, the retention of hybrid Tanner crab can be viewed as a defacto conservation benefit (savings) for true C. *bairdi* and C. *opilio* crab and should not result in punishment. The proposed regulatory change allows for the continued accounting of all crab landed without unnecessarily punishing vessels for the retention of crab that are not even considered as part of either Chionoecetes population.

PROPOSED BY: Alaska Bering Sea Crabbers; Central Bering Sea Fisherman's Association; and the City of St. Paul (HQ-F16-020)

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PROPOSAL 256 - 5 AAC 35.506. **Area J registration**. Allow full retention of legal male *C. bairdi* Tanner crab incidentally harvested by vessels targeting Bristol Bay red king crab, as follows:

5 AAC 35.506(i)(2) should be amended to read: "east of 166° W, as incidental harvest while the vessel operator is registered for the Bristol Bay red king crab fishery; a vessel operator that is registered to fish for Bristol Bay red king crab may also retain **all legal male** C. *bairdi* Tanner crab **taken incidentally during normal Bristol Bay red king crab commercial operations** [IN AN AMOUNT NOT TO EXCEED FIVE PERCENT OF THE WEIGHT OF BRISTOL BAY RED KING CRAB ON BOARD THE VESSEL AND REPORTED ON AN ADF&G FISH TICKET]."

What is the issue you would like the board to address and why? As currently outlined in regulation, vessel operators targeting Bristol Bay red king crab are only allowed to retain C. *bairdi* Tanner crab in an amount not to exceed five percent of the weight of Bristol Bay red king crab on board the vessel and reported on an ADF&G fish ticket. This regulation was originally adopted as a way for managers to accurately record effort and landings and to ensure that commercial vessel operators were using the appropriate gear type for the crab species they were targeting. Today, not only are vessels required to register for an individual target crab species, the pot gear used (with specifications codified in regulation) to target red king crab is configured differently from the pot gear used to target C. *bairdi* crab such that the pot gear utilized for targeting Bristol Bay red king crab has a larger mesh size and larger escapement rings than pot gear used for targeting C. *bairdi* Tanner crab. The naturally smaller C. *bairdi* crab have an increased ability to escape from red king crab pots. Regulated gear specifications, by target crab species, resulting in the physical difference in pot gear used, aids managers in their ability to distinguish between and track the effort of vessels targeting Bristol Bay red king crab versus those targeting C. *bairdi* crab, irrespective of the fact that these fisheries occur in an overlapping geographic area. But because of this geographic overlap, vessels targeting Bristol Bay red king crab do incidentally harvest C. *bairdi* crab as part of their normal fishing operations. If a vessel operator has an adequate amount of C. *bairdi* Tanner crab individual fishing quota (IFQ) available, that operator should not be incentivized by regulation to discard *any* incidentally taken legal male C. *bairdi* crab.

The rigidity found in an unnecessarily low incidental retention level is currently working in direct opposition to the management goal and objective of continued species conservation. One of the original (and continuing) goals of the Crab Rationalization Program outlined in the 2004 Final EIS focused on the need for reduction of bycatch and its associated mortality. Additionally, National Standard 9 states that "*Conservation and management measures shall, to the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch."* It is the minimization of bycatch mortality that is of concern. Over the past few years, survey and stock assessment information have indicated significant growth in the C. *bairdi* Tanner crab population. With a continued increase in this population (and available TAC), it can reasonably be expected that vessel operators targeting Bristol Bay red king crab will encounter greater numbers of legal male C. *bairdi* crab on the fishing grounds. Regulations that incentivize full and efficient use of the crab resource will work to minimize unnecessary and wasteful mortality to this population whereas the current incidental regulation creates a disincentive for such usage. Data on both directed catch and discard amounts (and their associated mortality rate) for a species are incorporated into annual stock assessments and can negatively impact population estimates, future population projections, and future total allowable catch (TAC) amounts. These discards of legal male C. *bairdi* crab during the Bristol Bay red king crab target fishery will be directly targeted and harvested at a later time when king crab operations are complete. This results in compounded mortality calculations being incorporated into the C. *bairdi* stock assessment

because of the mortality associated with: 1) when a crab is taken as incidental catch; 2) when a crab is taken as directed catch; and 3) when a crab is taken as both incidental and directed catch.

If the current incidental harvest limit for C. *bairdi* Tanner crab is retained, discards and their associated mortality will likely increase as the population overlap between C. *bairdi* crab and Bristol Bay red king crab increases. Available data may not seem to indicate that harvesters targeting Bristol Bay red king crab are actively retaining C. *bairdi* in amounts that approach the current 5% incidental limit, it is important to recognize that this is information is generally presented in aggregate across the fleet. Such aggregate data masks the fact that on an individual level, vessels do encounter large numbers of C. *bairdi* crab on the grounds during their red king crab operations. Unfortunately, on an individual catcher vessel basis, a 5% (by weight) incidental catch limit is too small to effectively manage during fishing operations and vessel operators would rather discard their incidental catch than risk a penalty for exceeding the regulated limit.

Prior to rationalization, the C. *bairdi* Tanner crab population was in a severely depressed state. One of the many benefits outlined and achieved with implementation of the Crab Rationalization program was improved resource conservation such that previously depleted stocks have been able to recover to healthy and sustainable levels. However, healthy populations of multiple, overlapping crab stocks now necessitate more flexibility for harvesters targeting those stocks so that unnecessary discards and wasteful mortality are not incentivized in direct opposition to the conservation benefits achieved. Such flexibility will provide for increased efficiency in operations for harvesters. Allowing the greatest maximum retention of all legal male crab species harvested will result in fewer pots being hauled throughout the season, which not only lessens the amount of time spent on the water while increasing CPUE, but it has the added benefit of increasing crew safety by decreasing the amount of time spent handling pot gear. Further, this flexibility will work to maximize deliveries of crab to coastal communities. This will result in increased fish taxes, business taxes, and other fees (i.e., fuel sales and supplies), which are a critical source of revenue not only for the various communities, but for the State of Alaska.

PROPOSED BY: Alaska Bering Sea Crabbers; Central Bering Sea Fishermen's Association; and the City of St. Paul (HQ-F16-023)

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<u>PROPOSAL 257</u> - 5 AAC 35.510. Fishing seasons for Registration Area J. Extend the Bering Sea District eastern boundary for retention of *C. opilio* crab from 166° W. long. to 165° W. long., as follows:

5 AAC 35.510(f)(2) should be amended to read: "in waters west of **<u>165° W. long.</u>**, [166° W. LONG.] male C. opilio Tanner crab may be taken from…"

What is the issue you would like the board to address and why? Over the past several commercial fishing seasons for C. *bairdi* Tanner crab, vessels targeting eastern C. *bairdi* crab (EBT) between 166° W long. and 163° W long. have been encountering increasing amounts of clean, legal-size male C. *opilio* during the course of their normal fishing operations. Unfortunately, because the eastern boundary limit for retention of C. *opilio* is at 166° W. long., these vessels are forced to discard all C. *opilio* crab.

There is a healthy population of C. *opilio* beyond the current eastern boundary. Requiring vessels to discard C. *opilio* crab forces unnecessary and wasteful mortality to the population of C. *opilio* as a whole. Mortality data from both directed catch and discard amounts are incorporated into annual stock assessments and can negatively impact population estimates and future population projections.

If the current eastern boundary for C. *opilio* crab is retained, regulatory discards and associated mortality will continue. Forced discards of legal male C. *opilio* crab are an unnecessary source of mortality that should be minimized and avoided to the greatest extent practicable. One of the many benefits outlined and achieved with implementation of the Crab Rationalization program was improved resource conservation, which should be a continuing focus and goal as commercial crab regulations are refined.

PROPOSED BY: Peter Liske (HQ-F16-075)
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PROPOSAL 258 - 5 AAC 35.506. Area J registration. Extend the Bering Sea District eastern boundary for retention of *C. bairdi* crab from 163° W. long. to 162° W. long., as follows:

5 AAC 35.506(i)(3) should be amended to read: "in a directed C. bairdi Tanner crab fishery occurring between **162° W. long.** [163° W. LONG.] and 166° W. long.;"

What is the issue you would like the board to address and why? Over the past several commercial fishing seasons, vessels targeting Bristol Bay red king crab have been encountering increasing amounts of clean, legal-size male C. *bairdi* crab as this population continues to grow and increase to healthy, sustainable levels. Unfortunately, because the eastern boundary limit for retention of eastern C. *bairdi* Tanner crab is at 163° W. long., these vessels are unable to retain any C. *bairdi* crab eastward of 163 W. long, including any C. *bairdi* harvested incidentally during directed red king crab operations.

Overlapping populations of both Bristol Bay red king crab and eastern C. *bairdi* are stable. Regulations that require or incentivize vessels to discard legal male C. *bairdi* crab forces unnecessary and wasteful mortality to the population of C. *bairdi* as a whole. Mortality data from both directed catch and discard amounts are incorporated into annual stock assessments and can negatively impact population estimates and future population projections.

If the current eastern boundary for C. *bairdi* crab is retained, discards and associated mortality will likely continue, especially as the C. *bairdi* population continues to grow. Any discards of legal male C. *bairdi* crab are an unnecessary source of mortality that should be minimized and avoided to the greatest extent practicable. One of the many benefits outlined and achieved with implementation of the Crab Rationalization program was improved resource conservation, which should be a continuing focus and goal as commercial crab regulations are refined. Further, adjusting the boundary eastward by one degree of latitude will not negatively impact sensitive life stages or time periods of Bristol Bay red king crab because: 1) bycatch of female and juvenile red king crab will be allowed to escape as the size of the escapement rings and mesh used for bairdi

and 2) the season closure of eastern bairdi would be remain March 31 to protect sensitive life periods.

PROPOSED BY: Peter Liske (HQ-F16-076)
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PROPOSAL 259 - 5 AAC 34.925. Lawful gear for Registration Area Q. Specify that escape rings and mesh are placed on a vertical plane or side of the pot in the Saint Matthew Island Section blue king crab fishery, as follows:

5 AAC 34.925(b)(2) is amended to read:

(2) in the Saint Matthew Island Section, each king crab pot must have eight escape rings with an inside diameter measure of 5.8 inches placed **on a vertical plane** within one mesh measurement from the bottom of the pot, with four escape rings on two sides of a four-sided pot, or if the pot has no escape rings as specified in this paragraph, then one-half of one **vertical** side of a four-sided pot must have a side panel composed of not less than eight-inch stretched mesh webbing;

What is the issue you would like the board to address and why? Placement of escape mechanisms for undersize and female crab is specified on a vertical surface in other Bering Sea and Aleutian Islands king crab fisheries, but not in the Saint Matthew Island Section blue king crab fishery. This could result in escape mechanisms placed in suboptimal locations causing small male and female crab to be retained and brought to the surface in crab pots. This proposed change will bring the Saint Matthew Island Section pot gear escape mechanism regulation in alignment with other king crab pot gear regulations for the Bering Sea.

PROPOSED BY: Alaska Department of Fish and Game (HQ-F16-163)
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PROPOSAL 260 - 5 AAC 35.521. Identification of Bering Sea Tanner crab. Adopt by reference the Alaska Department of Fish and Game *Chionoecetes* Crab Quick Reference Guide for *C. bairdi* and *C. opilio* Tanner crab, as follows:

5 AAC 35.521(c) is amended to read:

(c) For the purpose of 5 AAC 35.510(f)(3) and 5 AAC 35.520(b), a hybrid Tanner crab that conforms to the description in (a) of this section is considered to be a *C. bairdi* Tanner crab, and a hybrid Tanner crab that does not conform to that description is considered to be a *C. opilio* Tanner crab**, as illustrated in the Alaska Department of Fish and Game *Chionoecetes* Crab Quick Reference Guide, revised as of February, 2016 and adopted by reference**.

Editor's note: A copy of the Alaska Department of Fish and Game *Chionoecetes* Crab Quick Reference Guide adopted by reference in 5 AAC 35.521(c) can be found on the department's website at (INSERT WEB ADDRESS).

What is the issue you would like the board to address and why? The species range for *C. bairdi* and *C. opilio* Tanner crab overlap in the Bering Sea and these two species hybridize with resultant Tanner crab having morphological characteristics forming a continuum between the two species. A separate fishery for hybrid crab does not exist; however, hybrid Tanner crab are classified as either *C. bairdi* or *C. opilio* according to characteristics described in 5 AAC 35.521. Adopting the department's quick reference guide is a measure to help fishermen identify the two harvestable species *C. bairdi and C. opilio.*

PROPOSED BY: Alaska Department of Fish and Game (HQ-F16-165)
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PROPOSAL 261 - 5 AAC 35.506. Area J registration. Allow *C. opilio* Tanner crab bycatch retention up to five percent in the Bering Sea District *C. bairdi* Tanner crab fishery, east of 166° W. long., as follows:

5 AAC 35.506(j) is amended to read:

(j) In the Bering Sea District,

(1) a vessel operator that is registered to fish for *C. bairdi* Tanner crab east of 166° W. long. may also retain *C. opilio* Tanner crab in an amount not to exceed five percent of the weight of *C. bairdi* Tanner crab on board the vessel and reported on an ADF&G fish ticket; and

(2) a vessel operator that is registered to fish for *C. bairdi* Tanner crab west of 166° W. long. may also retain *C. opilio* Tanner crab in an amount not to exceed five percent of the weight of *C. bairdi* Tanner crab on board the vessel and reported on an ADF&G fish ticket.

What is the issue you would like the board to address and why? Fishermen have been encountering *C. opilio* Tanner crab east of 166° W. long., but with no means to harvest those crab towards their individual fishing quota. Allowing some retention of this bycatch will reduce discard mortality.

PROPOSED BY: Alaska Department of Fish and Game (HQ-F16-166)
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