

ALASKA BOARD OF FISHERIES  
DECISIONS REGARDING  
MANAGEMENT OF DOMESTIC KING CRAB FISHERIES  
IN THE  
BERING SEA/ALEUTIAN ISLANDS AREA  
March, 1982

*See also #81-92A-FB*

During its March 1981 meeting, the Alaska Board of Fisheries developed the Joint Statement of Principles on the Management of Domestic King Crab Fisheries and the Bering Sea/Aleutian Islands (BS/AI) King Crab Fishery Management Framework. These documents, which were prepared in cooperation with the North Pacific Fishery Management Council, clearly define the roles of both entities in the management of the domestic king crab fishery in the BS/AI area. The Board and Council formally adopted the Joint Statement of Principles in October 1981.

In conformance with the above mentioned documents and recognizing its responsibility for the management of the domestic king crab fisheries in the BS/AI area, the Board received public testimony, Alaska Department of Fish and Game (ADF&G), Alaska Department of Public Safety (ADPS), and National Marine Fisheries Service (NMFS) staff recommendations, and considered and discussed at length issues related to regulations controlling fisheries during its March 1982 meeting. During a portion of their meeting, the Board met jointly with the North Pacific Fishery Management Council to consider issues of mutual concern. The decisions of the Board are presented in summary. Further detail is available on the tape record of the Board meeting.

#### Bristol Bay Fishery

The 1981 king crab harvest in Bristol Bay was 33.6 million pounds, approximately one-quarter of the 1980 harvest. Low densities of recruit crab identified during the NMFS 1981 summer survey were substantiated by commercial fisheries performance. Four major topics were considered by the Board: 1) a request to classify the Bristol Bay area as a nonexclusive fishery; 2) a request for modifying the pot storage area; 3) establishing the Optimum Yield (OY) for the 1982 fishery; and 4) a request to change season opening date.

The Board considered a proposal to redesignate the Bristol Bay (Area T) fishery as a nonexclusive registration fishery. This area was classified as an exclusive registration area in 1980. This classification was opposed because: 1) it prevents the most efficient use of vessels and gear; 2) it is discriminatory; and 3) it allocates between users group solely for economic reasons. The Board received testimony supporting the status quo. The Board evaluated the conflicting desires of the user groups and rejected the proposal to redesignate the area as nonexclusive. The Board based their decision on their intent to provide a reasonable opportunity for all segments of the fleet to participate in the fisheries recognizing that some areas require large offshore vessels to harvest the resource while others may be harvested by smaller vessels fishing more inshore. Since any fisherman may register to fish Area T or any other registration area, the Board determined that the charge of discrimination was unfounded. Registration areas enable managers to more precisely monitor fishing effort in a particular fishery and therefore, allow fuller utilization of available surpluses without the concern for overharvest posed by a large mobile fleet. The Board was particularly concerned about the low OY in the Dutch Harbor area and the ability of the

Department to conduct a fishery without overharvesting various stock segments.

The Board considered a proposal to modify the existing crab pot storage area for the Bristol Bay fishery. This gear storage has been in effect since 1978 and is designed to alleviate the problem of limited nearshore shallow water storage. The intent of the gear storage area is to provide a location near the fishing grounds which can be utilized as a staging area after the Tanner crab season closes and before the king crab season opens. Sea ice prevents the storage area from being used year round. The proposal identified the following problems with the existing storage area: 1) differences between State and Federal pot storage regulations; 2) pot loses due to foreign trawling in the storage area; and 3) the great distance of the storage area from the fishing ground which results in high operating costs to the fisherman. The proposal recommended establishing a pot storage area located in the pot sanctuary described in the Council's BS/AI groundfish fishery management plan. The Board evaluated the indentified problems and concluded that the existing storage area did not satisfy the requirements of the fleet. The Board also concluded that while sufficient dry land storage for gear is available in the Dutch Harbor area, there is insufficient docking and handling to equitably accommodate the fleet. The Board recognized that the majority of the fleet utilizes dry land storage after the king crab season and that at sea storage was needed only during the period between the end of the Tanner crab season and the beginning of the king crab season. ADPS representatives stated that gear storage in a defined area was preferable to random storage because random storage is generally unenforceable. The Board expressed concern for allowing gear to be stored on major king and Tanner crab grounds located in the proposed area above 56°20'N. latitude. While the Board preferred no at sea storage because of gear conflicts, enforcement problems, ground preemption, and unknown biological impacts, they recognized that at sea storage was necessary and represents a balanced approach to conflicting concerns. The Board amended and then adopted the proposal by eliminating the northern "leg" of the area above 56°20'N. latitude. The Board concluded that the remaining area was sufficient to accommodate the numbers of pots requiring at sea storage. The northern "leg" of the area was eliminated by the Board because of: 1) major king crab grounds were encompassed in the original proposal; 2) concern for ground preemption in the major production areas and the desire to provide "fair and equitable" access to all fishermen; and 3) unknown biological impacts resulting from high concentrations of gear stored on major crab grounds particularly at the low population levels now in evidence in the Bristol Bay area.

The Bristol Bay king crab fishery is currently experiencing decreased recruitment and low population levels. The Board reviewed a report by Dr. Jerry Reeves, NMFS, which specified the allowable biological catch (ABC) for the 1982 season of 43 million pounds. This projection was based upon a "normal" recruitment pattern. Dr. Reeves cautioned that 1982 recruitment levels may be similar to the unexplained decline in recruitment observed in the 1981 fishery. In this "worse case" the ABC would only be 27 million pounds. He indicated that final determination of the ABC will not be available until approximately August 1, 1982 following the NMFS's survey of the Bering Sea. After a discussion of Dr. Reeves's recommendations the Board adopted 27 to 43 million pounds as the best estimate of ABC. The Board then considered setting the size limit and exploitation rate which determines the 1982 OY for Bristol Bay. The Board expressed concern for: 1) the unexplained recruitment failure in the 1981 fishery; 2) the low stock levels now evidenced in Bristol Bay; 3) the reproductive viability of the stock; 4) possible handling mortality resulting from high exploitation rates at the current size limits; 5) the inability of the staff to precisely determine the fishing

mortality rate; 6) the minimum marketing size requirements; 7) increased fuel costs resulting from high exploitation rates and low catch per unit of effort; and 8) insufficient public notification that size limits may be adjusted. The Board discussed setting the size limit at 6.25 inches carapace width. The Board recognized that handling mortality may be reduced while providing additional yield to the industry. Those advantages were evaluated against catching the industry off guard by lowering the size limit without full public review. The Board was particularly concerned about marketing 6.25 inch crab. Therefore, the Board decided to retain the current size limit of 6.5 inches. Next the Board considered the exploitation rate. According to the table furnished by Dr. Reeves a range of exploitation rates from .3 to .7 provided full female fertilization. The Board adopted a .6 exploitation based on the following: 1) concern for handling mortality which may result at higher exploitation rates; 2) low levels of crab abundance and lack of management experience at higher exploitation; 3) concern for the need to carry over a portion of the fishable population to the next year's fishery particularly if the unexplained recruitment failures continue; 4) concern for the viability of the industry as a result of low recruitment and low population levels; and 5) increased fleet and processor operating costs at higher exploitation rates. The Board deleted the guideline harvest levels from the regulations replacing it with an OY strategy which specifies harvesting the ABC at an exploitation rate of .6 and a 6.5 inch minimum size limit. The ADF&G was directed to implement this strategy based on the latest research information and to notify the public of the most current forecasts of harvest. The Board also put the industry on notice that they would consider a 6.25 inch size limit during their 1983 spring shellfish regulatory meeting.

The Board considered two proposals to change commercial king crab seasons in the Bristol Bay registration area. The Board rejected a proposed later season opening (October 1) in favor of the status quo (September 15) and also rejected a proposal to provide a year round brown king crab fishery. The preponderance of public testimony argued against changing the opening date because of: 1) weather problems with a later opening; 2) allocation problems amongst shifting fleets of vessels and mobile processors; 3) timing of other fisheries; 4) previous economic investments which may be jeopardized by changing seasons; and 5) lack of convincing evidence of improved recovery. Proponents of the change claimed: 1) improved recovery and therefore more dollars to the fleet and industry; 2) lower deadloss; and 3) better scheduling for processors and vessels involved in other fisheries. The Board based its decision to retain the September 15 opening date upon the following: 1) weather conditions in the Bering Sea generally worsen during the season and a later opening date would disadvantage owners and operators of smaller vessels as well as pose additional safety hazards to the entire fleet; 2) no definitive data was presented to the Board supporting the claim of additional recovery; 3) conflicts in scheduling vessels usage in other fisheries, such as tendering for Southeastern Alaska pink salmon doesn't appear to be a significant conflict; and 4) a later season opening date would allow mobile processing facilities the opportunity to buy crab in several fisheries which may adversely affect the capitalization of those processing plants and communities which have historically depended upon that resource. The Board also took action on a proposal to provide a year round brown king crab fishery in the Bristol Bay area. The ADF&G was opposed to the proposal because: 1) the NMFS surveys have reported no catches of brown king crab in the Bristol Bay area; 2) there have been no historical catch records of brown king crab from this area; 3) currently the season for red, blue and brown open simultaneously thus providing a reasonable opportunity for the fleet to attempt to develop this fishery; 4) rarely are brown king crab taken incidental to foreign trawling in the area; and 5) concern for

additional handling mortality on red king crab stocks which may result from a year round brown king crab fishery. The ADPS was opposed to the year round brown crab fishery because it would compromise the enforcement of openings and closures of the king and Tanner crab fisheries as well as pot storage regulations. In rejecting the year round brown king crab fishery in Area T the Board concluded: 1) the enforcement costs out weighed the benefits to the industry; 2) information presently available indicates very little brown king crab resource in Area T; and 3) the risk of increased handling mortality on the already depressed red king crab fishery outweighs the benefits of encouraging the development of an extremely marginal fishery.

### Norton Sound Fishery

The 1981 harvest of red king crab from Norton Sound was 1.4 million pounds. The ADF&G resource assessment survey conducted prior to this summer fishery coupled with an analysis of tagging data collected during the fishery indicated a 0.29 exploitation rate for the entire stock. Tagging studies were also conducted within the closed area which extends approximately 15 miles offshore in the northern and eastern portion of the district. Those studies revealed that king crab do migrate from the closed area into the open area of the commercial fishery. Therefore, it appears that the inshore portion of the stock which is primarily utilized by the subsistence fishery and the portion of the stock exposed to the commercial fishery freely intermix over time and can be managed as a single stock. However, preliminary information from the 1982 Nome area subsistence crab catches have shown some improvement presumably due in part to the 15 mile closed waters regulations adopted by the Board during 1981. Three major topics were considered by the Board: 1) several proposals to modify the current commercial fishing season; 2) a proposal to change the guideline harvest levels; and 3) a proposal to redescribe the Norton Sound section.

Proposals to modify the commercial fishing season ranged from a complete closure of the fishery, to lengthening the current summer commercial fishing season. Arguments presented to the Board in favor of eliminating the commercial fishery included: 1) the Nome Fish and Game Advisory Committee, which originally supported the development of an experimental fishery, never envisioned the large harvests recently experienced; 2) the original 10 million pound population estimate has now declined to 2.8 million pounds; 3) significant recruitment into the fishery is not expected for at least 2 years; 4) the subsistence fishery has rapidly declined since the development of the commercial fishery (subsistence harvest for 1978 was more than 18,000 crab, compared to about 500 in 1979 and 1980, and 371 crab in 1981); 5) the king crab resource in Norton Sound is at the northern extreme of its range and therefore, management measures should be more conservative than those used in other king crab fisheries; and 6) the costs to the State of conducting expensive research, management, and enforcement activities are not warranted given the rapidly declining stock levels. A proposal to change the season opening date of the summer Norton Sound commercial fishery from July 15 to May 1 drew considerable testimony. Proponents argued that a May 1 opening would: 1) promote more efficient utilization of vessels and gear which are involved in the opilio Tanner crab fishery and 2) provide additional data on abundance and life cycles of Norton Sound red king crab. Opponents argued that an August 1 opening date would: 1) be preferable due to timing of other fisheries thus enabling enough processors to participate in the fishery thereby insuring competitive prices to the fishermen; 2) improved recovery; and 3) provide sufficient time to fully utilize the harvestable resource. Following considerable discussion, the Board adopted an August 1 season opening date for the summer king crab fishery. They based their decision upon: 1) a later season opening would provide sufficient time for the industry

to fully utilize the available surplus; 2) a delayed season opening would likely improve crab recovery rates and decrease softshell handling mortalities; and 3) the later season opening would allow processors sufficient time to participate in other fisheries, particularly salmon.

The Board considered a proposal to change the guideline harvest levels for the Norton Sound red king crab fishery from the current 2-5 million pound to .5 to 1.1 million pounds for the 1982-83 fishery. The ADF&G projected 2.8 million pounds of legal male king crab available for the 1982 fishery. This information will be updated following the summer research survey immediately prior to the season opening date. According to the Management Framework the calculation of ABC and OY requires that: 1) ABC be calculated as a .4 exploitation of the legal male crab biomass; and 2) unless there is social, economic, or ecological reasons to depart from ABC then OY will equal ABC. The Board accepted 1.1 million pounds (.4 exploitation rate of 2.8 million pounds) as the best estimate of ABC. However, the Board concluded that a .4 exploitation rate did not provide sufficient protection necessary to assure a continued traditional subsistence food fishery at a level compatible with past food requirements. The Board was also concerned that recruitment levels are low and that the current population levels and commercial catches have significantly declined since the beginning of the commercial fishery. Therefore, the Board adopted an OY level equal to an exploitation rate of .2 of the legal male crab biomass in order to mitigate the aforementioned socioeconomic concerns. The Board amended the current guideline harvest level regulation, as they did in the Bristol Bay king crab fishery, by adopting a regulation which specifies this formula for determining the OY. The Board indicated that in the event that the commercial harvest cannot be taken in the open area of Norton Sound because the crabs are confined to the 15 mile offshore closed waters area, then the Department may relax the closed waters regulation to no closer than 3 miles from the beach.

The Board also took action on a proposal to redefine the Norton Sound fishing section. The Department indicated that the northern boundary of the Norton Sound king crab fishing district should be modified to reflect new knowledge of stock distribution. The Board concurred and adopted the proposed regulation.

#### Bering Sea Fishery

The Bering Sea fishery (Area Q) includes the blue king crab fisheries near the Pribilof, St. Matthew, and St. Lawrence Islands and the red king crab fishery in Norton Sound. Designed as a nonexclusive registration area, vessels fishing Area Q can freely transfer in and out of the fishery. The Board considered five major topics in this area: 1) a request to change the season opening date; 2) a request to provide for a year round brown king crab fishery; 3) establishing the OY for the 1982 fishery; 4) a request to change the pot storage area; and 5) a housekeeping proposal to change king crab size limits.

The Board considered a proposal to change the season opening date in the Pribilof red and blue crab fishery from the current September 15 to October 5. Arguments for and against a later season opening date paralleled those arguments which the Board considered in setting the season opening date in the Bristol Bay (Area T) king crab fishery. After considering all the testimony, the Board adopted a season opening date of September 10 followed by vessel tank inspections 5 days (116 hours) later. This action brings the season opening dates and tank inspection requirements for the Pribilof districts of Area Q king crab fishery in conformance with the existing Area T king crab fishery. The Board based

their decision upon the need to provide additional time for the fleet to haul gear to the fishing grounds because gear would be stored on land and in the newly designated and more distant pot storage area in Bristol Bay. The Board rejected a later season opening based upon the following: 1) no definitive data was presented to the Board supporting the claim of additional recovery due to a later season; 2) concern for conflicts in scheduling vessel and mobile processor usage in other fisheries; 3) concern for reallocation of the resource amongst the various users; 4) concern for possible major shifts of effort which may complicate management and necessitate a more restrictive harvesting strategy to prevent overfishing smaller stock segments; and 5) concern that weather conditions generally worsen during the season and a later opening would disadvantage owners and operators of smaller vessels as well as pose additional safety hazards to the entire fleet. The Board also considered a proposal to provide a year round brown king crab fishery in the Pribilof district of Area Q. The ADF&G indicated that NMFS surveys showed some brown king crab are available in the area but no population estimates have been made due to insufficient data. The ADPS expressed concern about enforcement of gear storage, and season opening and closing dates if the proposal was adopted. Proponents of the proposal cited the lack of information on the resource, the opportunity to gain additional data through a commercial fishery, and the desire of the industry to develop new fisheries. The Board amended the proposal to provide for opening and closing the fishery by Emergency Order. The Board reasoned that the ADF&G could provide for an exploratory fishery while mitigating enforcement concerns.

The Board considered a proposal to change the guideline harvest levels of the blue crab fisheries in Area Q. The NMFS reported legal male crab biomass estimates for the Pribilof and Northern districts at 31 and 14 million pounds, respectively. The Board concurred with setting the ABC equal to a .4 exploitation rate of the legal male biomass estimate. The Board deleted the guideline harvest levels from the regulations replacing it with an OY strategy which harvests the ABC. The ADF&G was directed to implement this strategy based on the latest research and fishery performance information and to notify the public of the most current forecasts of harvest.

The Board considered two problems associated with crab gear near several islands in the Bering Sea. The Board adopted a proposal to eliminate crab pot storage shoreward of 25 fathoms around the Pribilof Islands June 1 through August 31. The Board based its decision upon: 1) gear conflicts with a developing domestic longline fishery near the Pribilofs and 2) the lack of documentation on the need for wet storage of gear around the Pribilofs. The Board also considered eliminating commercial crab gear within three miles of St. Lawrence, King, and Little Diomed Islands. Proponents of the closure cited interference with local activities in pursuit of subsistence food gathering. The Board adopted the proposal concluding that the commercial fishery should be able to obtain the harvest while protecting the subsistence opportunities of local residents.

The final proposal for Area Q the Board considered was a housekeeping amendment necessary to bring two regulations in conformance. The staff explained that although the Board took action during the 1981 shellfish meeting to provide for a 7 1/2 inch red and blue crab season in the Pribilof district, the Board failed to also provide the same change under the size limit regulation. The Board recognized the oversight and adopted the proposal.

Dutch Harbor Fishery

The Board considered three topics relative to the Dutch Harbor king crab (Area 0) fishery: 1) a proposal to change the commercial fishing season; 2) a proposal to eliminate crab gear storage in less than 25 fathoms; and 3) establishing the OY for the 1982-83 fishery.

In evaluating the need to change the fishing season from the current November 1-February 15 to the proposed November 15-February 28, the Board received testimony both for and against the proposed change. Arguments for both positions paralleled those detailed in the Bristol Bay (Area T) fishing season discussion outlined above. In addition ADF&G staff objected to the closing date extending past February 15 because of the increased incidence of molting crab. The Board rejected the proposal in favor of the status quo. Reasons for the Board's decision included: 1) overwhelming public support for the status quo and 2) arguments for increased recovery were unsupported. In addition, the Board amended then adopted a proposal to provide a 5 day (116 hours) "bait up" period prior to vessel tank inspection on November 6. The Board based their decision upon the need to provide additional time for the fleet to haul gear to the fishing grounds because most gear is stored on land and there is insufficient docking and handling services to equitably accommodate the Area 0 fleet.

The Board considered a proposal to eliminate at sea storage of crab gear in the Dutch Harbor statistical Area 0. Proponents of this proposal expressed concern for major gear conflicts in the salmon, halibut, and shrimp fishery due to the numbers of crab pots in shallow water storage preempting fishing grounds necessary for other fisheries. The ADF&G also expressed concern for the apparent illegal storage of gear in some bays. Most of the gear is presumed to be utilized in the Bristol Bay (Area T) fishery and not the Dutch Harbor fishery. The Board adopted the proposal for the following reasons: 1) most of the Dutch Harbor fleet utilizes dry land storage; and 2) shallow water storage of crab gear results in an unacceptable level of gear conflict with other fisheries, particularly shrimp, salmon, and halibut.

The Board eliminated the Area 0 king crab guideline harvest level from the regulations in favor of an OY strategy. The Board specified that OY would equal ABC and ABC would be calculated as a .4 exploitation of the male crab 6.5 inches and larger in the population. The ADF&G indicated that the best estimate of ABC for the 1982-83 fishery is 4 million pounds. The Board instructed the ADF&G to implement the OY strategy based on the latest research and fleet performance data available. News releases will be employed by ADF&G to inform the public of the most up to date estimates of catch.

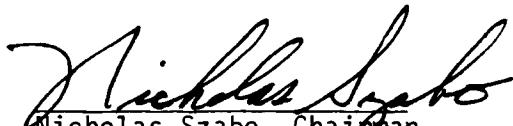
Adak Fishery

The Board considered a single proposal for the Adak (Area R) red and brown king crab fishery to change the season closing date from the current February 15 to May 31. Arguments in favor of this proposal claim: 1) king and Tanner crab could be fished simultaneously in Adak thereby lowering operating costs; and 2) the fishery would enable managers to gain additional life history and abundance information on the stocks in the area. The ADF&G opposed allowing the red king crab fishery to extend beyond February 15 because of problems with molting crab. The ADF&G suggested closing the brown king crab fishery by Emergency Order in order to closely monitor the catches and determine the impacts, if any, on the red king crab stocks. The Board concurred that such a regulation would allow for the development of the brown king crab fishery. The Board amended and then adopted the proposal to retain the current season opening date of

November 1 for red and brown king crab with a closure of the red king crab fishery February 15 and a closure of the brown king crab fishery by Emergency Order.

New Permitting Requirements

The Board considered a proposal to adopt regulations in the crab fishery to better monitor the activities of floating processors and catcher processors. Testimony submitted expressed concern that mobile processors may frustrate the management and conservation of crab stocks by processing undersized crabs and crabs which are illegally harvested during closed fishing seasons. The Board recognized the potential enforcement problem and adopted a regulation which requires mobile processors to obtain a permit from the ADF&G prior to beginning crab processing activities in the Westward region. The permit which must be signed by a representative of the mobile processor, allows the ADF&G and ADPS to, at any time, inspect any area on the processor and/or its finished product. The permit also requires the ADF&G to be notified concerning the offloading or transshipment of processed crab.

  
Nicholas Szabo, Chairman  
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