PUBLIC TESTIMONY SIGN-UP SHEET

Agenda Item: _C-3 BSAI CRAB ACLs_

	NAME (PLEASE PRINT)	TESTIFYING ON BEHALF OF:
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3	Mateo Paz-Soldan	City of St. Paul
4	Frank Kelty	City of Unalaska
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person " to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

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ALASKA BERING SEA CRABBERS

Date: September 28th, 2010

To: Eric A. Olson, Chairman
        Chris Oliver, Executive Director
        North Pacific Fishery Management Council
        605 West 4th Avenue, Suite 306
        Anchorage, Alaska 99501-2252

From: Alaska Bering Sea Crabbers

Re: Agenda item, C 3, Final Action BSAI Crab ACLs/Snow Crab Rebuilding

The Alaska Bering Sea Crabbers (ABSC, formerly known as ICEPAC), represent approximately 70% of the harvesters that fish crab in the Bering Sea. ABSC appreciates the opportunity to comment on the ACL and Snow Crab Rebuilding analysis which is scheduled for final action at this meeting.

ACLs

ABSC would first like to endorse the State of Alaska in their management of the Bering Sea/Aleutian Island crab stocks. ABSC feels it would be most appropriate for within model uncertainty (σ_w) to be estimated as part of the Federal process as outlined in the ACL analysis. However, ABSC also feels that it would be most appropriate for the State of Alaska (ADF&G) to estimate and account for additional uncertainty (σ_b). ADF&G has a long history of managing the BSAI crab stocks and ABSC supports the State in TAC setting authority and providing buffers for additional uncertainty in the future.

Discussions by the Statistical and Scientific Committee (SSC) and Crab Plan Team (CPT) make it clear that the process of determining an appropriate estimate of σ_b including whether additional variance should be 0.1, 0.2, 0.3 or so on is arbitrary. It is unnerving for industry to listen to scientists in the room banter back and forth these different additional variance levels, struggling to determine the appropriate level, with the impact to industry being extremely significant. The ACL analysis itself states, "a fully justifiable and defensible analytical means of calculating the extent of 'additional' uncertainty could not be identified". In fact, much of the justification for the values of "low, medium and high" levels of additional uncertainty comes from work done by other Councils for completely different fisheries. The last thing industry desires is to begin a new process where each year the SSC must determine and justify these low, medium and high levels of additional uncertainty. This will create additional instability for industry and force all parties to expend effort on a task that ADF&G is already doing well.

It is important to note that the crab harvest strategies already have significant buffers built in to them. It was noted at the most recent CPT meeting that if the SSC and Council wish to go down the path of estimating σ_b, then the harvest strategies should be modified to remove these buffers. Otherwise, the process will result in "double buffering". Some examples of buffers built in to the current harvest strategies include:

- Handling mortality estimates of 50% for snow crab. The most recent research shows this estimate is considerably higher than reality.
- Selectivity curves that are much too steep and have a "Q" that is too high. Note that Q was modified for the snow crab stock resulting in significant changes to the model. The selectivity curve for snow crab is still much too steep and no work on this has been done for the smaller stocks, including bairdi.
- It is a male only fishery and survey results show that rarely is female fertilization affected by the fishery.
- The current methodology for estimating "hot spots" almost always results in reducing the biomass estimate for a hot spot station. Also note that when a station returns a zero value, there is no hot spot methodology employed to verify if indeed there were any crab there.

However, even if the current models and harvest strategies were free of buffering, it would still be inappropriate to attempt to estimate σ_b through the process presented by the analysis. ADF&G is already estimating what this additional uncertainty is on an annual basis using real time data with the ability to respond much quicker and with greater accuracy. There is no reason to change a process that is already working well. ADF&G has provided a list of factors they review as part of their TAC setting process. The list includes:

Survey considerations
- Timing of survey relative to norms
- Net mensuration data, trawl performance or irregularities, if not accounted for in the assessment model
- Stock distribution relative to norms and registration area boundaries
- Presence or absence of "hot spot" stations, their location and influence on populations estimates
- Precision of survey estimates
- Independent ADF&G pot survey data

Fishery considerations
- Present/recent distribution of fishery relative to historic distribution of fishery
- Fishery performance relative to preseason expectations (or past fishery performance)
- Size/shell condition frequency of retained catch relative to surveyed population
- Fishery selectivity
  - Highgrading
  - Bycatch patterns (magnitude, sex/size/maturity composition, spatial distribution in directed and non-target fisheries
  - Potential for bycatch mortality
  - Area fished relative to survey distribution
- Monitoring tools, e.g., percentage observer coverage or port sampling
- Closed waters/refugia

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Population dynamics/stock structure considerations
- Size frequency distribution (to achieve a stock comprised of various size/age classes)
- Potential for future recruitment to legal and mature-size classes (consideration of environmental conditions on stock)
- Shell condition
- Average weight at time of fishery and survey
- . Cohort strength
- Presence or absence of disease
- Indices of reproductive capacity
- Proportion of females mated and clutch size
- Adequacy of male-female ratio; present male-female ration relative to historic patterns

Obviously, the level of detail that ADF&G considers in regards to additional uncertainty is far greater than the ACL process laid out in the analysis and will result in greater accuracy to maximize sustainable yield of BSAI crab stocks.

ABSC believes that in some years relying on ADF&G to account for σ_b will result in less TAC for harvesters while in other years it would result in more TAC. The information they have experience using to estimate out-of-model scientific uncertainty is simply better than the process laid out in the ACL analysis and will result in appropriately buffering when circumstances require it while providing limited buffering in circumstances when it is not necessary. This will result in maximizing the long term sustainable yield of the fishery.

ABSC feels confident in the above statement simply because ADF&G has shown a long history of conservatively managing the BSAI crab stocks. Some specific examples include:
- Last year ADF&G set the Bristol Bay red king crab TAC at 4M lbs below the maximum allowable for a directed catch. This is presumably because of concerns ADF&G has with a lack of recruitment in the fishery and industry is fully supportive of the State on this.
- Last year, ADF&G opened only the Eastern bairdi stock due to concerns regarding bycatch mortality of Western bairdi in the directed fishery.
- In 2005, industry highgraded red king crab and ADF&G took this additional mortality into account the following year. Once industry was able to prove that they had rectified the situation, ADF&G removed the buffering.

There are many other examples of ADF&G appropriately buffering our stocks due to conservation concerns. Following a prescriptive approach for σ_b will result in significant buffering to occur no matter what, even if it is not appropriate.

The ACL analysis highlights five areas where the Crab FMP appeared to be non-compliant with new MSA requirements. These five areas are listed below along with comments as to how the State proposed hybrid process will result in compliance:

(1) The FMPs must provide for the specification of annual catch limits (ACLs) that will prevent overfishing:

This requirement is met by implementing the process laid out in the ACL analysis for within model uncertainty (σ_w) and allowing the State to manage additional uncertainty (σ_b). This hybrid approach will ensure that there will be a less than 50% chance of overfishing occurring. The ACL will include buffers for σ_w and will equal ABC. The State will continue to consider additional uncertainty and has the

flexibility to apply these considerations to buffer the OFL point estimate as an alternative to the σ_b approach.

(2) The FMPs, must establish measures that will ensure adherence to annual catch limits, which, at a minimum, address any overages that may occur:

This requirement is met by implementing the hybrid approach of following the process laid out in the ACL analysis for within model uncertainty (σ_w) and allowing the State to manage additional uncertainty (σ_b). An annual catch limit will be established and the State will estimate additional uncertainty in the OFL point estimate when setting the TAC. Since these fisheries are IFQ fisheries, the likelihood of overages from the directed fishery is minimal. The bycatch of crab from other directed crab fisheries leading to overages is possible, although the current models account for this, as does (and would) the State as part of their consideration during the TAC setting process. Overages occurring due to bycatch from groundfish fisheries is an issue under any approach as currently the groundfish and crab FMPs are not linked. There is package going through the Council process to address this however.

(3) The Council must establish an acceptable biological catch (ABC) control rule based on the scientific advice of its Scientific and Statistical Committee (SSC), and which accounts for relevant sources of scientific uncertainty, and the FMPs must describe the ABC control rule:

This requirement is met if the SSC approves of the hybrid approach which accounts for σ_w through the process laid out in the ACL analysis while accounting for additional scientific uncertainty through quantitative and qualitative factors already considered within the current ADF&G process. Obviously, the FMP must also be updated to reflect any new expectation for the State to consider additional uncertainty in the OFL point estimate.

(4) The Council's Scientific and Statistical Committee must provide the Council with periodic recommendations for specifying the ABC for each fishery:

This requirement is met by the SSC annually setting the ABC for the various BSAI crab fisheries. Under the hybrid approach, the SSC would provide an ABC that is buffered to include within model uncertainty (σ_w). ADF&G would be constrained in TAC setting to this level, including accommodations for bycatch, uncertainty in bycatch estimates, and additional uncertainty in the OFL point estimate.

(5) The FMPs must describe the maximum sustainable yield (MSY) and assess and specify the optimum yield (OY) for the fishery:

This requirement is met by updating the FMPs to describe the hybrid approach. It could be argued that the hybrid approach better meets this requirement than a straight P* approach for both σ_w and σ_b as the hybrid approach will better attain MSY and OY.

In summary, ABSC feels that it is appropriate for within model uncertainty, σ_w, to follow the process as laid out in the ACL analysis. However, ABSC feels that additional uncertainty, σ_b, should continue to be estimated and accounted for by ADF&G. Reasons for this include:
- ADF&G has a long history of managing BSAI crab stocks
- ADF&G has accounted for scientific uncertainty in the past and continues to review a complete list of factors of additional uncertainty in their TAC setting process

- The ADF&G TAC setting process is flexible and can respond, on an annual basis, to the new requirements to buffer for scientific uncertainty in the OFL point estimate based on the best available information
- It is inefficient, extremely time consuming, and unnecessary to estimate σ_b through the process laid out in the ACL analysis when the State has historically considered factors that account for scientific uncertainty during the TAC setting process
- Following the hybrid approach of accounting for σ_w through the process laid out in the ACL analysis while accounting for additional uncertainty through the ADF&G TAC setting process will bring the BSAI crab FMP into compliance with MSA.

Finally, at this time ABSC supports a P* approach to estimate σ_w for all crab stocks except for possibly the tier 5 stocks. At this time, we are considering whether a P* approach or constant buffer approach would be more appropriate for tier 5 stocks. Further, we would note that a P* of .49 would meet the legal requirements of the MSA and could be viewed as appropriate due to other conservation buffers built into the modeling and TAC setting process.
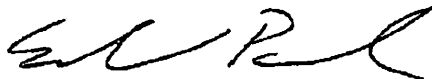
Opilio Rebuilding
ABSC is hopeful that National Marine Fisheries Service will soon provide a response to industries question regarding whether opilio should indeed require a new rebuilding plan, when the stock was never actually overfished using the best available science. ABSC's position on this is that since the stock is entering a new rebuilding plan, it would be appropriate to review the best available science. The opilio model now incorporates selectivity data from survey work concluded from the National Marine Fisheries Service/Bering Sea Fisheries Research Foundation cooperative trawl work. As a result, the model now shows that looking backwards, the stock never fell below MSST.

It is difficult for industry to understand why it would be appropriate to enter a new rebuilding plan under these circumstances. All of the options available for rebuilding result in significant risk to the industry of TAC declines if the stock does not maintain a trajectory towards rebuilding. It is also frustrating for industry as our baseline for rebuilding (bMSY) continues to be based on a period of extremely high productivity for the stock, likely due to environmentally favorable conditions. It is quite possible that if we must enter a new rebuilding plan that the stock would not recover to a rebuilt level even if no fishing is allowed simply because of environmental factors which hamper productivity.

At this time, ABSC's position on opilio rebuilding is that a new rebuilding plan is not appropriate since the best available science shows the stock was not originally overfished.

Sincerely,

Edward Poulsen, Executive Director
Alaska Bering Sea Crabbers