

North Pacific Fishery Management Council

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MINUTES Scientific and Statistical Committee June 25-27, 1990 Anchorage, AK

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met June 25-27, 1990 at the Hilton Hotel in Anchorage, Alaska. Members present were:

Richard Marasco, Chairman	Dan Huppert
Doug Eggers, Vice Chairman	Bill Aron
Jack Tagart	Don Rosenberg
Larry Hreha	John Burns
Gordon Kruse	

C-3 Pollock Roe-Stripping/Season Apportionment Amendment

The SSC heard a report from Council Staff summarizing the alternatives under consideration. The SSC was provided with a summary statement for the RIR and comments prepared in response questions raised by the Council and the public. The SSC received this material during the meeting and did not have time for its review. Therefore, no additional comments are offered on this issue.

C-4 Limited Entry for the Sablefish Fixed-gear Fishery

The SSC reviewed the completed draft of the fishery plan amendment for the sablefish limited entry system. We have addressed this issue in the past, and have only supplementary comments to make on substance of the Quota Share/IFQ system. The 1990 longline fishery closure due to halibut bycatch, reveals a possible problem with bycatch in IFQ fisheries. In 1990 approximately 90 percent of the longline halibut bycatch was taken in the sablefish fisheries. Under the IFQ system the longline fishery may reduce its halibut bycatch, and the potential for fishery closure caused by attaining the bycatch limit. A continuation of the race to take the halibut bycatch cap, however, could prevent some fishermen from taking their IFQs. It should be clearly explained that IFQs permit landing of the stated annual amounts only so long as the sablefish fishery remains open under the full set of groundfish regulations. Moreover, this discussion of halibut bycatch in a sablefish IFQ fishery highlights the problems associated with single species limited access in a multi-species fishery. We recommend that the Council move forward on its long-term development of limited access for halibut and other groundfish species.

D-1 Salmon Plan: Definition of Overfishing

The SSC reviewed draft EA/RIR for the definition of overfishing for the salmon fisheries off Alaska. The SSC wishes to point out that this document has not been reviewed and adopted by the team.

The SSC recommends that Alternatives 2-4 be dropped since they are unworkable. The specific rationale for eliminating these alternatives should be discussed briefly in the revised document. It is recommended that Alternative 5 remain.

The SSC recommends that the Plan Team add an alternative that describes the current salmon conservation policies that the State of Alaska and the Pacific Salmon Commission use to manage the salmon fisheries of Alaska. The SSC believes these policies are adequate to ensure the management of Alaska's salmon fisheries for sustained yield and to provide for the rebuilding of depressed stocks. Since these policies are more conservative than those required by the 602 guidelines, they should serve as the basis of the overfishing definition. Since all of Alaska's salmon fisheries, except for the salmon bycatch in the EEZ trawl fisheries, are managed by the State of Alaska or the Pacific Salmon Commission, the most consistent and efficient course of action for Council would be reflected in the suggested alternative.

The SSC has appointed a review subcommittee (Doug Eggers, Jack Tagart and Don Rosenberg) to examine revisions to the draft definition. The revised draft is expected to be delivered to the review subcommittee by the end of July. Provided the revisions are satisfactory, the SSC recommends the draft amendment EA/RIR be submitted for public review.

D-2 Crab Plan: Definition of overfishing

The SSC reviewed the definition of overfishing in the draft EA/RIR for amendment 1 to the FMP for commercial king and Tanner crab fisheries in the BS/AI. While the SSC applauds the efforts of the plan team, we recommend additional analyses and some editing for clarification prior to submission for public review. Specifically, the definition of overfishing must address fishing mortality imposed by non-directed fisheries. This mortality is not currently considered in the draft amendment. Second, the plan team acknowledged comments received from NOAA representatives in Washington D.C. and the SSC recommends that these comments be addressed, including deletion of the concept of overfishing defined as "illegal fishing." The plan team needs to clarify its definition of overfishing using a constant fishing mortality rate. Abundance estimates are unavailable for some stocks, yet the plan team suggested using $F_{\text{overfishing}} = M$, instantaneous rate of natural mortality, for these stocks. Without some estimate of abundance the plan team cannot measure annual fishing mortality, and it is not possible to determine when overfishing has occurred. Finally, the plan team grouped stocks into categories according to the amount of biological information available for these stocks, then applied differing criteria to define overfishing for each group. The SSC recommends that the Crab plan team review the mechanism for default definitions of overfishing used in the Groundfish FMP which accommodates variable amounts of available biological information for groundfish stocks. This device may represent a suitable alternative to the strategy of designating groups.

The SSC has appointed a review subcommittee (Gordon Kruse, Bill Clark, Jack Tagart and Terry Quinn) to examine revisions to the draft definition of overfishing. The revised draft is expected to be delivered to the review subcommittee by the end of July. Provided the revisions are satisfactory, the SSC recommends the draft amendment EA/RIR be submitted for public review.

D-3 Groundfish FMPs

D-3(a) Amendments 21/16

Chapter 2 Crab and Halibut Bycatch

The SSC reviewed chapter two of the groundfish amendment package that deals with crab and halibut for the Bering Sea and Aleutian Islands. It was brought to our attention that the halibut regulations were not properly specified in the model. We were told that the model was being corrected.

The SSC supports the concept of providing incentives to reduce bycatch for individual vessels advanced in Alternative 3, because it is consistent with the goal of reducing bycatch while achieving OYs for groundfish. However, the incentives implicit in the "Penalty Box" concept, in situations of low observer coverage, may result in the extension of the directed fishery that should be constrained by PSC limits. The bycatch rates for the observed portion of the fleet is used to estimate the bycatch rates for the unobserved fleet. Under the "penalty box" strong incentives are provided for the observed fleet that do not apply to the unobserved fleet, to reduce its bycatch. If these incentives result in a large reduction of bycatch rates, and these rates are applied to the unobserved fleet, then the actual bycatch of the unobserved fleet may be greatly underestimated. If the observed catch is a high fraction of the total catch, as it is in the Bering Sea, then the error in the total bycatch estimate may be negligible. However, if the observed fraction is low as in the Gulf of Alaska, then the error in estimated total bycatch could be large with the possibility that actual bycatch could exceed the PSC limit.

Chapter 3 Overfishing Definition

With respect to the EA/RIR for amendments 21 and 16, the SSC recommends the third alternative definition of overfishing for the Gulf of Alaska and Bering Sea groundfish management plans, based on a constant fishing mortality rate (F_{msy} or a suitable surrogate) with no threshold. The SSC's recommendation differs from the majority of plan team members who supported Alternatives 6 and seven each of which include a specified threshold. The SSC notes that a constant fishing mortality rate minimizes variability in annual yield and notes further that when this definition has been consistently applied "it is difficult to find evidence of a stock that has collapsed." A constant fishing mortality rate represents "an objective measurable definition of overfishing." Estimates of the preferred constant mortality rate are obtainable even when overall information on a stock is minimal. The fishing mortality rate imposed on a stock is controllable by the Council, i.e., the Council constrains the annual fishing mortality rate through imposition of TACs and assures that harvest does not exceed TAC. Further, bycatch is accountable through the observer program, and a total fishing mortality rate from all sources can be estimated. By contrast, pristine biomass, an essential component of the definition of threshold, can not be estimated for all groundfish stocks, i.e., a definition using threshold may not be measurable. Second, stock biomass may decline independent of the effects of fishing, which implies that the decline may not be preventable by the Council. Finally, if overfishing is defined using a threshold, all fishing, directed and by-catch must stop, whenever stock biomass is less than the threshold. Unless the Council can show that the net benefit to the nation is impaired by this constraint, a single depressed stock may result in closure of all fisheries including those with any bycatch of that stock. Therefore, overfishing defined by a constant fishing mortality rate conserves the stock, minimizes yield variability, is objective and measurable, and provides greater management flexibility.

Our preference for a constant fishing mortality rate definition of overfishing should not be interpreted as discontinuing use of thresholds. The SSC believes that thresholds should continue to be integrated into the fishery management process in the determination of ABCs. BS/AI and Gulf of Alaska groundfish fishery management plans currently include a threshold definition and further define ABC as a seasonally determined range of catches that may be set between zero and the current biomass less the threshold value. The SSC wants to preserve this relationship between threshold and ABC, and requests the plan teams to estimate thresholds for stocks with estimates of pristine biomass (Table 3.3 on page 3-32) using methods outlined in Alternative 2 (page 3-17) of the EA/RIR for groundfish. The potential benefits of retaining thresholds in the ABC determinations are that they: (1) attempt to ensure that a population does not decline below a level that jeopardizes its ability to produce maximum sustainable yield over a reasonable time frame, (2) promote rebuilding of a stock driven to low levels of abundance, (3) attempt to maintain biomass levels that provide stability of species in food webs, including a forage base for higher trophic levels such as marine mammals, and (4) can be useful in achieving alternative management objectives such as assuring a high rate of CPUE.

Chapter 4 Establish Procedure for Interim TAC Specifications In GOA and BS/AI.

Without annual specifications filed with the Office of the Federal Register, authority does not exist to allow enforcement of regulation. This amendment provides for the adoption of interim TAC's which are proposed at the September Council meeting so that management authority is in place on January 1, which is the beginning of the fishing year. The final TAC's, determined at the December Council meeting would then replace the interim TAC's as soon as possible after the December meeting. In past years the regulations have not taken effect on January 1, and have been delayed to as late as March 21.

There are two alternatives to the status quo (Alternative 1). Alternative 2 implements 100% of the interim TAC and Alternative 3 implements 25% of the interim TAC and is more conservative in that it would avoid establishing an interim specification for a particular species that might be much larger than that which the Secretary might eventually implement as the final TAC. This would be particularly important to a fishery that is very intense in the January time period.

The SSC recommends adoption of Alternative 3.

Chapter 5 Modify the Authorization Language for Demersal Shelf Rockfish Management in the Gulf of Alaska.

The current authorization is limited to allowing the State to establish small areas and quotas as long as they are consistent with specific provisions of the FMP. This amendment would allow the State broader management authority under the plan.

The SSC reviewed the proposed Alternatives. Alternative 1, the status quo, would continue to limit the authority of State management to establishment of smaller areas and quotas. The Council would retain the setting of the TAC for the resource and any change in the management measures would require a plan amendment. Under Alternative 2, the Council would continue to set the TAC. Other management regulations would be set by the Board of Fisheries with NOAA and Council review prior to adoption. This would make the regulation between State and Federal waters consistent. The State would have authority to set measures deemed appropriate to conserve and manage the demersal shelf rockfish complex. Definition of management areas, specification of area quotas and trip limits provide examples of measures that could be used.

The SSC does not have a preferred Alternative.

Chapter 6 Change Fishing Gear Restrictions in the Gulf of Alaska and Bering Sea/Aleutian Islands.

There is only one alternative other than status quo. Alternative 2 adopts gear restrictions and allows future changes to be made by regulation rather than plan amendment. There are three options under Alternative 2; Option A, requires biodegradable panels in groundfish pots; Option B, requires halibut exclusion devices in groundfish pots; and Option C is a new definition of Pelagic Trawls.

The SSC recommends adoption of Alternative 2 in it's entirety.

Chapter 7 Expand Halibut Bycatch Management Measures For The Gulf Of Alaska.

The SSC reviewed the halibut bycatch management measures proposed for the Gulf of Alaska. While there are some problems of clarity in the description of the proposed measures, particularly for Alternative 3 which lacks analytical details, the status quo (Alternative 1) does not represent a satisfactory method for controlling bycatch. The SSC suggests that the Council move forward to implement Alternative 2 and further develop Alternative 3 for consideration at a future meeting. If the "penalty box" described in Chapter 2 for the Bering Sea is implemented in the Gulf of Alaska, the problem of bias in bycatch estimation could be serious because of larger proportion of unobserved vessels operating in the GOA.

D-3 (c) and (d) Crab/Halibut and Herring Bycatch Management

The SSC is concerned about bycatch rates and spatial distribution of DAP fisheries used to analyze alternative halibut/crab and herring bycatch management measures. In addition, bycatches of halibut and crab may be affected by measures to reduce bycatches of herring and vice versa.

The SSC recommends that the analysis of the halibut/crab bycatch management alternatives be folded into the analysis of the herring bycatch management alternatives. In doing this the team should develop the following: (1) an expanded model framework incorporating herring, halibut, red king crab, and *C. bairdi* bycatches and with sufficient spatial and temporal detail to address the alternatives, (2) a consistent set of bycatch rates by fishery and area, and (3) a consistent set of assumptions on the spatial distribution of the fishery. This activity insures that a common baseline is available to evaluate costs and benefits of alternative bycatch management measures. The SSC also recommends that an analysis be conducted to determine the sensitivity of model results to alternative assumptions concerning bycatch rate and spatial/temporal distribution of the fishery.

To clarify the analysis, the SSC suggests that the team: (1) add a table that lists specific model parameters used in the alternatives, (2) use more non-technical terms in tables summarizing results of alternatives, and (3) label tables so they can be readily interpreted independent of the text.

The SSC has appointed a review subcommittee (Gordon Kruse, Bill Clark, Richard Marasco, and Dan Huppert) which will examine revisions to the draft EA/RIR. The revised draft is expected to be delivered to the review subcommittee by the end of July. Provided the revisions are satisfactory, the SSC recommends the draft amendment EA/RIR be submitted for public review.