

North Pacific Fishery Management Council

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MINUTES Scientific and Statistical Committee June 19-21, 1989 Anchorage, AK

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met June 19-21 at the Sheraton Hotel in Anchorage, Alaska. Members present were:

Richard Marasco, Chairman
Doug Eggers, Vice Chairman
Jack Tagart
Larry Hreha
John Burns
Bill Clark

Terry Quinn
Bill Aron
Don Rosenberg
Don Bevan
Dana Schmidt

C-8 FULL UTILIZATION IN THE GROUND FISH FISHERIES

The SSC reviewed the discussion paper, "Non-Utilization in the Groundfish Fisheries off Alaska." Before the Council proceeds further with development of an Amendment to address incomplete utilization issues, a careful definition of full-utilization should be developed. For example, does full-utilization mean full-utilization of the targeted catch, of the total catch, or of the processed catch? Also required is a clear and concise statement of the problem. A list of specific alternatives to address the problem should be developed to provide guidance for further analysis of full utilization. Analysis of alternatives will require information on the magnitude and nature of discards, and costs associated with full-utilization. Because of the lack of an adequate observer program, information on discards in DAP fisheries is limited. Industry sources will have to be contacted to determine the cost implication of full-utilization.

D-1 GENERAL GROUND FISH

D-1(a) Amendment 13 to the Bering Sea/Aleutian Islands groundfish plan and Amendment 18 to the Gulf of Alaska groundfish plan.

2.0 Allocate Sablefish Total Allowable Catch in the Bering Sea/Aleutian Islands.

Consideration of this issue was made difficult by the lack of clear specification of objectives and availability of data. Given these limitations the drafters of the EA/RIR had to restrict their analysis to an examination of how gross revenues would be affected by alternatives under consideration. A sensitivity analysis was conducted to determine how the results would be affected by different bycatch rates, percentage allocation of the sablefish TAC to different gear types, proportion of pollock taken in midwater trawls, and different TAC's. The impact of alternative price assumptions was not explored. The text indicates that the price for longline-caught sablefish is greater than that for trawl gear, but that the difference has diminished in recent years. Information received during public testimony suggests that the difference has disappeared. Consideration of the impact of alternative prices on the results of the analysis would have been useful.

Some situations were examined in which the groundfish fisheries would be allowed to continue after the sablefish TAC is reached with the condition that sablefish be discarded. Assuming 100% discard mortality, this would result in sablefish catch exceeding the ABC. The analysis for this scenario does not consider the impacts on the abundance of sablefish or on future revenues to be realized from the harvest of groundfish.

In summary, no clear preferred alternative emerged from the assessment.

3.0 Establish a Fishing Season Framework for all Groundfish Fisheries in the Gulf of Alaska and Bering Sea/Aleutian Islands.

The SSC reviewed the amendment documents and heard public testimony on this amendment and reiterates it's comments from the April, 1989 minutes:

(1) The use of "windows" as proposed in alternative two reduces the flexibility of the framework process, and eliminates the possibility of multiple openings as in the halibut fishery; (2) The timing of proposals for changes in seasons is not consistent with the current Council procedure; and (3) The amendment as proposed does not reflect the industry's concerns that sudden changes in fishing seasons disrupt their planning activities and may have allocative effects.

The SSC believes that if fishing seasons (opening dates) are frameworked the timing of consideration of proposed changes should be consistent with the groundfish FMP amendment cycle. Alternative 3 is the SSC's preferred alternative because of increased flexibility.

4.0 Establish a Shelikof District in the Central Regulatory Area of the Gulf of Alaska.

The SSC supports alternative 2, establishing the new Shelikof district. Establishment of this district would provide for the option of different harvest levels in different districts depending on biomass recruitment and trend of pollock in the Gulf. This district was established by emergency regulation for implementation this past year to facilitate an experimental spring fishery with the intent of directing the fleet to determine the location of other spawning aggregations of pollock in the Gulf of Alaska. During the prosecution of this spring pollock fishery, the data obtained from the fleet established the locations of additional pollock spawning aggregations that were surveyed by NMFS. This information and the age information obtained from the fishery catch sampling provided very useful information in completing the current stock assessment work used by the SSC in their deliberations on the Gulf of Alaska pollock ABC review.

For continuity in historical catch reporting, the Shelikof district should be divided into East and West reporting areas representing Chirikof and Kodiak INPFC statistical areas.

5.0 Establish a Groundfish Fishing Closed Zone near the Walrus Islands and Cape Peirce in the Bering Sea/Aleutian Islands.

This proposal responds to a concern that recently developed fisheries operating in the northern Bristol Bay have interfered with the use of hauling grounds by walrus at the Walrus Islands and Cape Peirce.

Available documents and testimony contain anecdotal information but there are not scientifically rigorous data on which to base a decision. There is, however, a long record of use by walrus of the sanctuary and of management responses taken by sanctuary managers (State of Alaska) in response to changes in use patterns by walrus.

The Walrus Islands State Game Sanctuary which includes Round, High, and Crooked Islands and the Twins, was established in 1960 when the walrus population was thought to number 60,000 to 90,000 animals. The sanctuary was established with the primary goal of protecting walrus while they were on the only active haulout in the eastern Bering Sea. Purposes for establishing the sanctuary were (1) to protect walrus from disturbance and harassment while they are hauled out on land, (2) to protect the islands used by the walrus, and (3) to provide a location for the study and observation of walrus in an undisturbed setting.

Realization of the purposes of the sanctuary has required management actions in response to perceived threats to walrus. These have included flight altitude restrictions of aircraft, limits on the number and activities of scientists and other visitors, designated approach and landing areas for vessels, closure of state waters to fishing activities, and local public

information and education efforts.

These management efforts has seen an increase of the walrus numbers on Round Island by 1986. In the spring of 1987, an intensive trawl fishery for yellow fin sole occurred in the northern Bristol Bay, particularly around the Walrus Islands. This fishery continued in 1988. Coincident with the development of this fishery in the area was an approximate 50% decline in the number of walruses onshore. There are no scientific data to evaluate cause and effect, and therefore to critically evaluate the proposed alternatives.

One identifiable change, that being the increased presence and activity of large trawlers, coincides with the recent decline in walrus numbers on haulouts in the northern Bristol Bay.

Action which will eliminate or reduce the presence of large trawlers and the concomitant waterborne and airborne noises, would be consistent with the long-term goals and objective of the sanctuary. Maximum protection would most likely be accomplished by accepting Alternative 3. However, exclusion of the trawl fleet from such a large area raises other problems, not the least of which is that of increased incidental catches of non-target species. In view of the incidental catch problem, and the unproven assertions of disturbance, the SSC believes that Alternative 2 is preferred.

6.0 Replace the King Crab Protection Time/Area Closures around Kodiak Island and Modify the Halibut Bycatch Management Regime for the Gulf of Alaska.

(a) King Crab Protection Time/Area Closures

The SSC reviewed the alternatives and has no additional comments on the analysis supporting the options presented. Alternative 3 will provide for protection of a group of crab that presumably will support a commercial fishery in two or three years after Type III closures become effective. This alternative will provide greater assurance that the trawl fishery bycatch will not impact this new group of crab, prior to their recruitment into the commercial red king crab fishery.

The SSC also recommends that an analysis evaluating the effectiveness of the closure implemented by the Council be prepared prior to future consideration of this topic. We would also like to note that adoption of Alternative 3 may result in some foregone groundfish harvest and/or higher harvesting costs.

(b) Halibut PSC Framework for Gulf of Alaska

The SSC concurs with the need to modify the current halibut bycatch management regime for the Gulf of Alaska. The development of a comprehensive amendment package is premature, since the data to implement the proposed regime currently are not available. The SSC recommends that a comprehensive system for halibut bycatch management be developed after an observer program is implemented

and data are being collected. The SSC recommends minimum changes in the status quo for bycatch management in the Gulf of Alaska for next year.

We suggest that the consideration of alternatives be limited to 2a (Require pot gear that minimizes halibut bycatch) and 2(b)2 (establish 750 mt longline and pot and 2000 mt trawl bycatch limits). Without an observer program, the actual halibut bycatch mortality associated with trawl and longline catches may differ widely from the projected limits agreed to by industry and proposed in alternative 2(b)2.

Other alternatives also have merit, but their implementation requires information not now available.

7.0 Expand the Pacific Cod Trawl Exemption Zone in the Bering Sea/Aleutian Islands.

The evaluation of alternatives is based on only twelve research tows, done by NMFS in June 1989. These data show no significant difference in groundfish catch rates within and beyond the 25 fathom line. King crab bycatch rates appear to be higher in the 25-30 fathom zone, and halibut bycatch rates lower. Herring catch rates in the research tows were minimal.

The available data are not adequate to permit a realistic evaluation of the impacts associated with alternatives. Observer data from commercial operations conducted inside and outside 25 fathoms are required for such evaluations.

8.0 Implement a System of Observer Coverage and Record keeping and Data Reporting Requirements for the Groundfish Fisheries of the Gulf of Alaska and Bering Sea/Aleutian Islands.

(a) Record Keeping and Reporting

The SSC reviewed the latest Plan Team document and found that the changes it had suggested at the previous Council meeting had been included in the new document. Alternative 2, which modifies the status quo to expand record keeping and reporting requirements, is recommended as the option of choice. The SSC recommends that after the new system is successfully implemented, efforts should be initiated to reduce redundancy between Federal and State record keeping requirements.

(b) Observer Program

The SSC notes that the success of the foreign fisheries observer program was successful because it's primary focus ^{was} on the acquisition of biological data rather than being a primary enforcement effort. A similar emphases for a domestic observer program is stressed in the preamble to the amendment describing the domestic program. The SSC further believes that to be effective an observer program must be mandatory, and at any level of coverage less than 100% it must be flexible.

For these reasons the SSC supports Alternative 3 as most effectively meeting the requirements for scientific data in an economical fashion. It is expected that this program will be coordinated with the Marine Mammal Observer Program and supplemental to it.

The level of observer coverage required must be determined on a fishery by fishery basis, but it is expected that an initial 20% coverage will provide the necessary data base to determine the required coverage, when examined in comparison with logbooks.

D-1(c) ROE STRIPPING AMENDMENT

The SSC reviewed the draft EA/RIR/IRFA and received detailed oral presentation about the matter of roe stripping. We recommend that the draft document not go forward for public review at this time, for the reasons stated below.

There is no clear statement of the problem and the alternatives considered go beyond the issue of roe stripping. While roe stripping of pollock does not change the magnitude of catch, it does affect the duration of the fishery and the distribution of the TAC among user groups. Roe stripping may have biological effects, including impacts on recruitment by alteration of sex ratios and/or behavior of spawning fish.

The current evaluation of alternatives is inadequate. For example, there is no evaluation of potential total costs that may be associated with converting vessels and shorebased processing facilities to fully utilize pollock.

A statement of the problem, specific alternatives identified to solve that problem, and a more through analysis of the alternatives are necessary before the document goes out for public review.

D-2 GULF OF ALASKA POLLOCK

The SSC wishes the Council to note that the compression of the normal schedule for data analysis and review of both the pollock and codfish issues, including roe-stripping, presented serious problems to the SSC in assuring adequate time for careful work. Given the increasing capacity of a highly competitive industry to harvest available fish resources, the SSC urges the Council to take whatever steps necessary to avoid mid-season management changes. Further, the economic significance of management decisions requires full and careful review of all documents prepared. Developing adequate scientific advice for the Council is time-consuming and complex, nevertheless sufficient time must be allotted for preparation of analyses and review.

D-2(a), (b) GULF OF ALASKA POLLOCK

The SSC reviewed the preliminary report of the status of the Gulf of Alaska walleye pollock resource. The SSC commends the authors

(Hollowed and Megrey) for a well-written and insightful analysis produced under severe time constraints. In particular, the analysis is noteworthy in two regards: (1) the analysis is an integrated approach which combines catch-age information, catch biomass, and bottom trawl and hydroacoustic survey biomass and age-structure, (2) the analysis introduces parameters for selectivity of the survey gear. The authors clearly delimited the assumptions of their approach and highlighted weaknesses in the data. For example, only one sample of age composition from a catcher/processor vessel was obtained in 1989; the surveys may not accurately sample the entire population; catch-age data do not come from all areas in recent times. The authors considered three models A, B, and C, which contain different assumptions about survey selectivity and natural mortality, and several population projections.

The most recent estimate of biomass is estimated from many sources of data, rather than as a point estimate from a survey, as in the December analysis. The most recent estimate of total biomass is larger, and based on the preferred model A than that estimated in December. The model essentially scales observed survey biomass upward by accounting for selectivity of the survey gear. The analysis also indicated that the current population has a significant component of age 10+ fish (1978 and earlier yearclasses), which contributed to the 1989 fishery. In contrast, the 1986 yearclass appeared to be one of the lowest on record, and preliminary evidence from the length frequency distribution of the 1989 hydroacoustic survey suggests that the 1987 yearclass may also be weak. Moreover, since 1983 there have been no strong yearclasses, i.e., yearclasses of the magnitude which contributed to the large Shelikof Strait fishery of the early 1980's. In summary, the pollock resource appears to be significantly smaller (approximately 25% of early-1980's biomass), and there are apparently no strong incoming yearclasses which will greatly increase the biomass in the future.

Projections were made of potential future biomass, using different assumptions about catch and recruitment. Recruitment appears to be the major factor in determining future biomass. In the projections biomass appears to decrease from 1988 to 1990, regardless of the assumptions, and increase thereafter, due to use of average recruitment for these years.

In light of the new information and analysis, the SSC decided to recalculate the 1989 ABC because of the desirability of the integrated analysis and because it was shown that the estimated biomass used in December (biomass from the 1987 bottom trawl survey) was in error due to use of an incorrect scaling factor. The SSC followed the procedure used in December to calculate ABC as the product of biomass times exploitation rate. The best estimate of biomass from the preliminary report is 720,000 mt. No new information was available regarding an optimal exploitation rate, so the SSC used the historical exploitation rate of 10%, which was used in December. The resulting ABC for 1989 is 72,000 mt.

The Council may wish to reexamine the 1989 pollock TAC of 60,000 mt in light of the recalculation of the 1989 ABC. The SSC notes that the determination of ABC is subject to uncertainty due to lack of information about future recruitment and to statistical error in determining current biomass and exploitation rate. The SSC also learned that the bycatch need for the remainder of 1989 ranges from 4000 to 12000 mt for other domestic fisheries and from 3000 to 5000 mt for a potential joint venture flatfish fishery. The SSC further recommends an observer program and sampling for age composition of pollock, if fisheries having a catch of pollock do take place. The SSC also notes that a comprehensive bottom trawl survey of the Central Gulf is likely to take place this fall.

Further analysis of the pollock resource is anticipated for the next RAD in September. The age composition from the 1989 hydroacoustic survey will be incorporated. The SSC also recommends additional information and analyses be included. An estimate of statistical error for biomass should be obtained. A quadratic function for natural mortality rate should be considered. Analysis of residuals of the age composition of the catch and the surveys should be undertaken. Determination of optimal exploitation rate and exploitable biomass in the presence of gear selectivity should be undertaken. The report should include a table of annual fishing mortality estimates and a table of population sizes at age. In population projections, a worst-case scenario of low recruitment in all years should be included.

D-2(e) EMERGENCY ACTION TO IMPLEMENT THE SINGLE SPECIES RULE

No Comment

D-2(d) INCREASE THE PACIFIC COD TAC IN THE GULF OF ALASKA

The SSC reviewed Industry's request to increase Pacific cod TAC in the western Gulf of Alaska. We concur with the Plan Team that Pacific cod are considered a Gulfwide stock. We also support the Plan Team's strategy to distribute fishing effort by allocating TAC in proportion to the perceived distribution of biomass. This practice is regarded as prudent management which attempts to reduce the probability of generating localized depletion of the stock. Best estimates of stock distribution are incorporated in the 1989 assignment of TAC. No evidence has been introduced to amend the assessment of the distribution of the stock. Therefore, the SSC concurs with the Plan Team's recommendation that "...the TAC should be distributed approximately as the biomass is distributed to regulatory areas." However, "Minor discrepancies [in this distribution] would not be of concern." (see Agenda D-2(c)(3), June 1989).

OTHER BUSINESS

Team Membership

The SSC reviewed Washington Department of Fisheries nomination of Dr. Han-Lin Lai for membership on the Gulf of Alaska Groundfish

Team. We recommend that Dr. Lai be appointed to the Team.

Donut TAC

The SSC reviewed a document entitled "Preliminary Estimation of Total Allowable Catch for Pollock in the Donut Hole of the Bering Sea". The SSC had discussions on the content of the paper and drafted a review for the use of the US/USSR advisory committee.

Confidential Data

The SSC discussion of the Pacific Cod trawl exemption zone raised a question of confidentiality of data.

The question which needs to be asked of counsel is:

Can confidential information be analyzed by the SSC, Council staff, and Plan team members provided that they agree to conform to the restrictions provided in the regulations for handling confidential fishery data, and the deliberations are held in a closed session.