

North Pacific Fishery Management Council


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MINUTES

North Pacific Fishery Management Council
Scientific and Statistical Committee
Anchorage, Alaska

September 26-27, 1983

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met in Anchorage on September 26-27, 1983. Members present were:

Richard Marasco, Vice Chairman
William Aron
Don Bevan
Bud Burgner
John Clark
Larry Hreha
Jack Lechner

B-1(a) Concern over Operational Procedures

The SSC reviewed the letter to the Council [agenda B-1(a)] from many leaders of the Northwest fishing industry. We generally concur with the concern expressed in this letter and urge the Council take appropriate action to solve the problems surfaced by this document. The SSC is prepared to assist the Council in this matter.

C-2 Halibut Fisheries Management

The SSC heard a report given by Council staff which summarized the results of a meeting of the Halibut Workgroup held in Anchorage on September 7 and 8, 1983. Steve Hoag, IPHC, also gave the SSC an update on the 1983 fishery. No comments are offered on either of these reports.

C-6 Foreign Fees

The SSC received a report from Council staff which summarized results of a meeting of the Foreign Fees Workgroup held in Seattle on August 30, 1983. No comments on this report are offered.

D-2 Herring

With respect to the herring management plan, the SSC reiterates its position that the FMP as submitted for Secretarial review in March 1982 is preferable to the two FCZ-only alternatives now being considered. We reiterate our position that the March 1982 plan was extremely conservative because the stock assessment techniques used to determine biomass (and thus ABC) provide conservative values. The SSC feels that the March 1982 version of the plan contained adequate measures to protect the subsistence stocks and therefore that any offshore allocation provided for by the plan could be fully harvested. Thus, reduction of the offshore allocations as provided in the present proposed versions is not a conservation issue. Further, our position remains that for the plan to be effective, OY should apply to the entire herring resource, inshore and offshore.

With respect to establishing herring as a prohibited species to foreign fleets rather than an allowable incidental catch, the SSC reiterates its position that it sees no scientific merit in establishing herring as a prohibited species. A prohibited species cannot be retained and is thus discarded at sea and wasted. The same amount of herring will be killed whether it is an AIC or a prohibited species. We note again that the AIC procedure would allow herring to be retained but stops all fishing by a foreign nation in the area when its AIC level is reached.

With respect to change in timing of allocation of AIC, we support the recommendation of Council staff and NMFS that a standardized April 1 allocation date be adopted, with closure of the Herring Savings Area limited to during the period October 1 - March 31 in the event the current year's AIC was exceeded.

The SSC supports the addition of a weekly radio reporting requirement for FCZ fishermen who don't fill out an ADF&G fish ticket or sell to a joint venture processor.

The SSC discussed further the report by Fried and Weststad entitled, "Productivity of Pacific herring (Clupea harengus pallasii) in the Eastern Bering Sea under various patterns of exploitation." We concur that the computer model derived by the authors provides some useful insights into the effects of various fishing patterns upon herring productivity and yield. Some of the conclusions of note are:

1. Within the model, MSY was achieved at an exploitation rate of 30% of spawning biomass, but the potential yield loss is small at the more conservative exploitation rate of 20% .
2. Because a significant relationship between stock and recruitment was not found, it was necessary to generate recruitment in the model using stochastic procedures to simulate environmental effects.
3. The model indicated that during years in which the inshore fisheries fail to harvest the Togiak group (the primary stock) at a 20% harvest rate, an offshore harvest of up to 10,000 t could be allowed with minimum risk to other spawning groups which had been harvested inshore at a 20% rate.

The SSC cautions that it was necessary for the authors to make certain assumptions in the model regarding offshore stock mixing, school aggregations and harvest effects. Information is inadequate to substantiate these assumptions, but the overall approach appears to be conservative. The SSC notes also that Alaska Peninsula-Aleutian stocks and the Unalaska area fishery were not entered into the model. In spite of these reservations, the SSC considers the model analysis provides very useful information.

A further analysis was conducted by Wespestad to determine the effects of an annual offshore harvest of 10,000 mt, in addition to the usual inshore harvest rate on all stocks allowed by the old ABC formula. While a full report was not available to the SSC on this alternative strategy, our superficial evaluation indicated overharvesting (exploitation in excess of 30%) of individual stocks occur with a 5% frequency.

The SSC considered briefly the proposal by North Pacific Fishing Vessel Owner's Association for a January-April 1984 offshore winter herring research fishery at the level of 10,000 mt. We believe there is utility in using the Fried-Wespestad modeling exercise in evaluating the potential impact of such a fishery on an annual basis. We recommend that in order to evaluate the merits of the industry proposal, the PMT or an expanded scientific committee, meet for the following purpose:

1. Identify knowledge gaps, particularly in offshore stocks.
2. Look at experimental designs to fill these gaps.
3. Consider the utility of NPFVOA proposal in light of the above exercise, including costs of obtaining data.
4. Make recommendations concerning the proposal or a modification thereof, considering necessary phasing of research and the need for a multi-year project.

The SSC also discussed Harold Lokken's request that a package of research proposals be prepared which would address the major gaps in our knowledge of Bering Sea herring. Staff provided a useful preliminary summary of research needs, and some proposal input was provided by ADF&G and NMFS. The SSC recommends, however, that a more coordinated evaluation of research needs be made by the PMT in consultation with the agencies presently involved in Bering Sea herring research so that RFPs can be developed. The SSC feels that the first step toward filling gaps in our knowledge base is definition of the problem requiring solution and development of a long-term research/data collection strategy. While the proposals received are interesting, how they all fit into a scheme that would reduce the knowledge gaps in a cost-effective manner is not clear.

D-3 King Crab FMP

The SSC reviewed data presented by Dr. Bob Otto, NMFS, concerning the 1983 eastern Bering Sea crab survey. Results of the survey indicate that the king crab population is at low levels of abundance. Substantial population decreases of other crab species were also indicated. Factors that have contributed to these declines have not been identified. The list of potential causes of the decline include, but is not limited to, increased predation, reduced survival rates, and increased disease levels.

D-4 Tanner Crab FMP

The SSC has reviewed Amendment #10 to the Tanner crab plan and recommends it not be approved by the Council.

This review, and we suspect the drafting of the excellent Regulatory Issues Paper, has been made difficult since the objectives of the regulations have not been clearly stated by either the Fisheries Board or the Council.

The amendment proposes pot limits and exclusive registration areas. We conclude that neither address a conservation issue. Allocation may result from the implementation of either exclusive registration or pot limits. However, the nature of the allocative effects are unclear. Results of the RIP indicate, for example, that in an area of mixed fleet size on the northeast side of Kodiak an adoption of a 200-pot limit could transfer catch from smaller to larger vessels. With respect to the allocative effects associated with the creation of exclusive areas, these outcomes are dependent upon the relative abundance of crabs in different management areas and the levels of effort exerted by various components of the fleet that fish the area.

Given the status of the Kodiak Tanner crab it is unlikely that the reduction from 250 to 200 pots will have any effect on the number of pots fished. Additions to the fleet and the possibility of increase in the average number of pots per vessel will probably mask any effect of the pot limit.

The area registration proposed to limit effort and increase seasons seems unlikely to succeed since the increased effort has mainly come from an increase in local fleet size. We are uncertain as to whether the setting of common opening dates has rendered moot the question of exclusive areas.

We conclude that (1) the amendment will not provide the objectives for which we think they were designed; (2) there is at least a question as to whether they can be enforced; and (3) that given our experience with Amendment #8 we feel certain they will not make it through the system.

Amendment #10 does have a positive and beneficial result. It would provide for desirable conformity between state and federal regulations. The same goal could, of course, be met if the Board of Fisheries changed their regulations.

The objective of conformity in regulation is important enough that the Board and Council should consider carefully how future regulations can be promulgated with assurance that they meet national standards and achieve the goals desired.

As a first step we suggest communications calling for changes in regulation be considered only if the objectives to be met are stated. The Board and Council should consider and agree on goals and objectives before detailed regulations are drafted.

We recommend that the Board and Council at their next meeting address the questions of establishing procedures so that goals and objectives of management can be achieved.

D-5 Gulf of Alaska FMP

(a) Prohibited Species Group Activities

The SSC reviewed the summary of the Phase 1 report prepared by the Prohibited Species Working Group. Results of the Phase 1 analyses indicate that the yield losses associated with the incidental catches are of sufficient magnitude to warrant examination of the various types of remedial action that might be taken. It was also indicated that incidental catch data for the domestic fishery are limited. In light of these findings the Workgroup indicated that a need exists to:

1. examine methods to reduce incidental catches that occur in the foreign and joint-venture fisheries, and
2. explore ways of obtaining accurate estimates of incidental catches and mortalities associated with the domestic fishery so that these catches can be reduced.

The SSC concurs with the working group's request that it be allowed to proceed with Phase II of its study.

(b) Review of Status of Stocks

The SSC reviewed the PMT report on status of stocks. This report is a product of the Team's preliminary examination of the available data. The following is a brief summary of findings:

1. It was determined that the pollock stock is in good condition. Preliminary projections indicate that the exploitable biomass in 1984 will exceed the average for the 1976-82 period. The team expects to have an estimate of annual surplus production by December.
2. Significant gaps exist in the data base for Pacific cod, flounders, and other rockfish. Update of EYs for these species will occur after analyses of data from the 1984 NMFS Gulf of Alaska groundfish survey.
3. Because of the limited nature of the data and high data acquisition costs, no modification of the EYs for squid, Atka mackerel, thorny-heads, Pacific Ocean perch and other species is expected to occur in the near future.
4. The condition of sablefish stocks was found to be improving. It is anticipated that the condition of the stock will continue to improve. No modification in the OYs for sablefish are recommended at this time because of the apparent migration pattern of the stock and the desire to increase the number of large sablefish.

The Team recommended that the percent distribution of OY for Pacific cod by regulatory area be changed by amendment for the 1984 fishery. The current distribution of OY is 28, 56 and 16% in the Western, Central and Eastern areas, respectively. Results of the 1981 Gulf of Alaska research vessel trawl survey, which is probably more indicative of recent biomass distribution than

the surveys used in the FMP, showed that the available biomass was distributed 59, 39 and 2% in the Western, Central and Eastern areas. The SSC concurs with the Team and recommends that this be done.

The SSC wishes to express its concern with the practice of setting OY for cod and flounders at a low level as a halibut savings measure. The current OY for cod in the Gulf of 60,000 mt was set in this manner. The SSC recommends that the Team examine the economic and biological implications of setting OYs in that manner.

It was brought to the attention of the SSC that the catches of most species have not equalled the OY and we recommend that the PMT work with the NMFS Regional Office and foreign fishing representatives to determine the reasons and suggest possible solutions.

D-6 Bering Sea/Aleutian Island Groundfish FMP

SSC discussions of the Bering Sea/Aleutian Island Groundfish FMP focused on the following issues:

1. the foreign trawl closure in the Petrel Bank area of the Aleutian Islands,
2. the proposed 1984 catch figures for total allowable catch, domestic allowable harvest and joint venture processed catch, and
3. the incidental catch of prohibited species.

Petrel Bank Closure

Council staff informed the SSC that the Council's intention on this issue as reflected by the public record is not clear. Points of contention include:

1. the extension of the time for the closure from Dec. 1 through June 30 to seven days prior to the opening of the U.S. king crab fishery through June 30, and
2. expansion of the area to be closed 12 nautical miles of the baseline to include the entire area within the coordinates delineating Petrel Bank. The rationale for this closure is to avoid gear conflicts during the conduct of the domestic king crab fishery and to avoid the incidental catch of king crab in foreign trawl operations.

With respect to reasons given for closure of this area, the SSC has the following comments. Area closures to resolve gear conflicts and ground preemption should be viewed as a measure of last resort. The history of gear conflicts in this area is unclear. No information on the frequency of conflicts in their area was given. During the past few years foreign and domestic fishermen have expended a lot of effort in resolving these types of conflicts. The SSC considers this latter method of conflict resolution to be the preferred approach.

Given recent implementation of Amendment 3, the Council's management mechanism to reduce the incidental catch of prohibited species, the SSC is not convinced that establishment of this closure to induce foreign fishing fleets to reduce the incidental catch of prohibited species is warranted.

Proposed 1984 TACs and DAHs

In order to provide the biological basis for TACs, the PMT submitted for SSC review in July the Resource Assessment Document (RAD). It was brought to the attention of the SSC that since submission of the RAD, ongoing status of stocks research indicates the need for updating EYs for pollock and Pacific cod. Recent analyses by NWAFC have indicated the presence of large numbers of older pollock (fish greater than 40 cm in length) and a strong 1982 year class. Given this new information, it was suggested that the pollock EY for Bering Sea/Aleutian Islands should be increased to 1.3 million t. Analyses of data obtained from the NMFS groundfish survey and updates of biomass projections indicate that the preliminary allowable catch for 1984 reported in the RAD was set lower than required. Dr. Loh-Lee Low (NWAFC) reported that the allowable catch could be increased to 291.3 kt. In addition to updates on pollock and Pacific cod, it was determined that the yellowfin sole biomass has increased. Since EY in the RAD is set at in excess of 200 kt, no adjustment is necessary.

The need to adjust EYs and OYs contained in the RAD gave rise to the following question: "How and when should the numbers be updated?" It is important to recall that when Amendment #1 was being developed, it was envisioned that initial EY and OY values contained in the RAD would be updated to ensure that decisions would be based on current information. Since Amendment #1 provides for sending OY options out for public review after the September meeting and analyses of 1983 status of stock information obtained during the groundfish survey will be nearing completion, it was decided that the most current information should be taken into account in structuring the OY options that are sent out. In light of this discussion, the SSC recommended that the PMT adjust TAC option 1 to reflect current stock conditions. In the future, the SSC recommended that the PMT attach a preface to the RAD explaining that the EYs and OYs reported are preliminary and that the numbers will be adjusted as more current information becomes available. It was also indicated that OY options sent out for public review should be based on the most current information available.

The SSC also reviewed a document produced by NRC which compares projected domestic harvesting capacity and allowable catch levels for Pacific cod. The analysis reported in this very informative and scientifically sound document indicates that given the allowable harvest levels reported in the RAD document, domestic harvesting capabilities would exceed allowable catch levels in 1985. As a result of these comparisons, it was suggested that the Council should consider banking fish during 1984 by reducing TALFF. Recent allowable catch projections suggest that the need for banking, while not necessary at present, could be considered in the future.

The SSC also heard a report on prohibited species given by Dr. Loh-Lee Low of NWAFC.

E-1 CONTRACTS AND PROPOSALS

(a) Contract 81-5

The SSC reviewed the draft report entitled, "Determination of Stock Origins of Chinook Salmon Incidentally Caught in Foreign Trawls in the Alaska FCZ," authored by Kathrine W. Myers and Donald E. Rogers which was submitted to fulfill obligations incurred from Contract 81-5 between the NPFMC and the University of Washington. Overall, it is the opinion of the SSC that the contractor adequately met their contractual obligations and that they developed a good and technically sound data base concerning stock origins of chinook incidentally harvested in trawl fisheries of the FCZ. Such a data base was unavailable prior to this research and yet was a crucial need in understanding potential effects of the trawl fisheries on the domestic salmon fishery and industry. The SSC recommends that the final draft of the report be somewhat reformatted and requests that the contractor review the contract document for stipulations concerning format and consequently add a preface, list of abbreviations and symbols, abstract, and key words. Likewise, the executive summary should be rewritten to review the contract objectives and statement of work and to sufficiently summarize how these requirements were addressed by the contractor.

The SSC reviewed the contractor's recommendations for additional areas of research and consequently recommends that a one-year continuation of this research be supported by the NPFMC. Specifically, the 1982 foreign trawl fishery samples should be allocated via regional stock models similar to what was done with 1978, 1979 and 1981 samples, numerical estimates by stock for 1978, 1979, 1981 and 1982 catches should be developed, and an analysis of the four-year data base should be undertaken to determine critical time/area blocks which could be used in the future to conserve important domestic chinook stocks and yet allow continuation of groundfish trawl fisheries in the FCZ. Additionally, the SSC recommends that the scale pattern analysis technique be applied to age 0 chinook caught in the Southeast Alaska troll fishery, as the contractor recommended. It was determined that this additional research will cost approximately \$40k.

(b) Contract 82-3: Economic Profile of Southeast

The SSC has determined that the requirements of this contract have been met. A list of recommended text revisions has been given to the author of the report. It is recommended that the Council accept the report subject to inclusion of the suggested changes in the final document.

(c) Golden King Crab Study

During the discussion of this proposal, it was brought to the attention of the SSC that NMFS plans to conduct cooperative research with crab vessel operators during the fall of 1983. The purpose of the research is determination of the size at maturity for brown king crab in the Aleutian Islands. The SSC believes that this proposal would be better considered after completion of this cooperative research.

(d) Net-marked Salmon Study

The SSC does not recommend funding of this letter proposal from Clinton Atkinson for an exploratory search and interim report concerning salmon and flying squid distributions and occurrences of net-marked salmon in the Southeast Alaska troll fishery. We note that this topic is already the subject of considerable documentation and review in the INPFC Sub-Committee on Salmon, and that additional documents will be presented at the annual meeting of INPFC in Anchorage in October-November, which will be attended by Council representatives. Documents on salmon and squid distribution will be presented by Japanese and U.S. scientists. The incidence of net-marks in the 1982 S.E. Alaska troll fishery has been reported in an ADF&G report and examination for gill net marks in the 1983 troll fishery is again being conducted by ADF&G port samplers. Discussions have also been held concerning the S.E. troll logbook information and its possible usefulness. Thus, the proposed study would duplicate to a large extent ongoing analyses and documentation.

(e) Sablefish Research

The GOA PMT provided the SSC with a list of potential sablefish research topics. Research projects identified were prioritized and approximate costs given. The SSC recommends that this list be sent to NMFS, state agencies and Universities to determine the degree of interest. Upon receiving this information, the SSC feels that the Council will be in a better position to determine research funding needs.