# SUMMARY MINUTES Scientific and Statistical Committee

Pacific Fishery Management Council Park Plaza Hotel Peninsula 4 1177 Airport Blvd. Burlingame, CA 94010 (650) 342-9200 June 11-15, 2001

#### Call to Order

The meeting was called to order at 8 a.m. by Chair Cynthia Thomson. Dr. Donald McIsaac, Executive Director, provided opening comments and discussed the priority of items on the Scientific and Statistical Committee (SSC) agenda. The agenda was approved.

## **Members in Attendance**

- Dr. Brian Allee, Columbia Basin Fish and Wildlife Authority, Portland, OR
- Mr. Alan Byrne, Idaho Department of Fish and Game, Nampa, ID
- Mr. Robert Conrad, Northwest Indian Fisheries Commission, Olympia, WA
- Dr. Michael Dalton, California State University, Monterey Bay, CA
- Dr. Robert Francis, University of Washington, Seattle, WA
- Dr. Kevin Hill, California Department of Fish and Game, La Jolla, CA
- Mr. Tom Jagielo, Washington Department of Fish and Wildlife, Olympia, WA
- Dr. Peter Lawson, National Marine Fisheries Service, Newport, OR
- Dr. Andre Punt, University of Washington, Seattle, WA
- Dr. Stephen Ralston, National Marine Fisheries Service, Santa Cruz, CA
- Dr. Gary Stauffer, National Marine Fisheries Service, Seattle, WA
- Ms. Cynthia Thomson, National Marine Fisheries Service, Santa Cruz, CA
- Dr. Shijie Zhou, Oregon Department of Fish and Wildlife, Portland, OR

#### Members Absent

Dr. Ramon Conser, National Marine Fisheries Service, La Jolla, CA

## **SSC Reports to the Council**

## Groundfish

Sablefish Three-Tier Program, Qualification with Setnet Landings

Mr. Jim Seger presented two proposals to the SSC regarding the application of setnet landings from exempted fishing permits (EFPs - also called experimental fishing permits) to the current three-tier cumulative limit system for the primary limited entry fixed gear sablefish fishery. Alternative 1 (status quo) keeps vessel limits based on past sablefish landings using fishpots or longlines regardless of vessel participation in experimental setnet fishing for sablefish. Alternative 2 gives vessels credit for setnet landings taken under EFPs from 1984-1987. Credit for EFP setnet landings is primarily an issue of permit allocation with no significant habitat or biological impacts. Under alternative 2, a single vessel would move from tier 2 to tier 1, which would decrease the cumulative limit for tier 1 permit holders by less than 1%. There is an incentive issue involved since the affected vessel incurred costs by participating in the experimental setnet sablefish fishery. Giving credit for landings would encourage participation in other experimental programs.

## Marine Recreational Fisheries Statistics Survey Update

Mr. Russell Porter with Pacific States Marine Fisheries Commission (PSMFC) briefed the SSC on the status of the Recreational Fishery Information Network (RecFIN) program that is administered by the PSMFC. Inadequacies in the RecFIN budget could eliminate Marine Recreational Fisheries Statistics Survey (MRFSS) field sampling on a coast-wide basis from November 2001 through February 2002. The RecFIN database provides information essential to stock assessments of some species. A reduction in the data quality and coverage in the RecFIN database due to budget limitations could negatively impact future stock assessments for several recreationally-important species such as black rockfish, bocaccio, lingcod, and cowcod.

Mr. Porter reported there has been continued progress toward integrating the MRFSS data with information collected by the state agencies. This is an important improvement to the RecFIN database and the SSC recommends these efforts continue.

There has also been continued progress toward rectifying differences between state and MRFSS estimates when both are available. The analysis and report for Oregon has been completed. A report examining the state-produced and MRFSS estimates for Washington is expected in August. The SSC looks forward to seeing this report.

## Stock Assessment Priorities for 2002

Ms. Cyreis Schmitt (National Marine Fisheries Service) presented an overview of the proposed stock assessment process for the 2002 cycle. Only three assessment projects were selected – whiting, cabezon, and either bocaccio or continued development of methods for assessing data poor species. The proposed list is short, because of the substantial ongoing review of historical fishery and survey data, a review which may affect future stock assessments. Changes include:

Adjustments to historical triennial survey data by taking account of "water hauls."

Potential restratification of survey data based on new habitat information.

Revised estimates of historical foreign catch.

New estimates of groundfish trawl discard rates.

In response to last year's SSC request for a longer stock assessment planning horizon, NMFS developed a draft proposal for assessments and rebuilding analyses for the 2002 through 2010 cycles. The SSC suggests the following changes to that proposal:

Conduct yellowtail rockfish assessments on a 3-year cycle. The next assessment would be in the 2003 rather than the 2004 cycle.

Conduct a canary rockfish assessment in the 2002 cycle, contingent on having age data from the 2001 triennial survey in time to meet the earlier stock assessment schedule.

## **Exempted Fishing Permit Applications**

Two applications for EFPs – one dated April 3, 2001 and the other dated May 16, 2001 – were presented to the SSC. A third proposal from the California Department of Fish and Game (CDFG) was not reviewed due to late submission.

The April 3 application, which was submitted by the Washington Department of Fish and Wildlife, is designed to measure the bycatch rates of canary and other rockfish in the arrowtooth flounder fishery. The proposal requires vessels covered by the EFP to conduct their arrowtooth tows north of 48° N latitude, where it is expected that fishers would achieve lower canary rockfish bycatch rates. The SSC raised questions regarding potential confounding of gear and area effects, due to lack of a control study in the area south of 48°. The applicants indicated it would be possible to use the federal observer program to estimate the area effect. However, it is not clear to the SSC whether the combination of EFP and federal observer data would be adequate for this purpose. The SSC recommends that information be included in the EFP application regarding estimated quantities of catch by species expected for the duration of the study.

The May 16 proposal is designed to be a collaborative project among CDFG, vessel owner Mr. Kenyan Hensel and the Pacific Marine Conservation Council to test the feasibility of using vertical hook-and-line gear to selectively catch yellowtail rockfish without significantly increasing the incidental bycatch of canary rockfish. The SSC notes this is not a statistical study to measure selectivity, but represents an opportunity for one vessel to test the feasibility of selective vertical hook-and-line gear. The results of this study could not be extrapolated to the rest of the fleet. The SSC recommends the following information be included in the EFP application, (1) the end point of the EFP, such as maximum number of trips under the EFP or an ending date, (2) a provision to end the study if allowable canary bycatch limits are prematurely exceeded, (3) a provision that an observer be onboard for all trips, and (4) estimates of the quantities of catch by species expected for the duration of the study.

For future reference, the SSC requests guidance from the Council regarding how rigorously EFP applications should be reviewed on a scientific basis. On the one hand, EFPs are not research permits. On the other hand, in cases where the results of studies conducted under EFPs are used as a basis for changes in fishery regulations, it will be important that adequate justification be provided for such changes.

#### Rebuilding Plans

The SSC discussed aspects of the widow rockfish, lingcod, darkblotched rockfish, and Pacific ocean perch (POP) rebuilding analyses and associated plans. In addition to specific issues relating to each analysis, the SSC also discussed the more general issue of how to incorporate new data and analyses into existing rebuilding plans.

Harvest guidelines and rebuilding trajectories in existing rebuilding plans may not be consistent with information in new stock assessments. This becomes problematic if, for instance, the new information causes the rebuilding time to cross the 10-year threshold. The need is to identify which variables in the rebuilding plans should be subject to updating and which should remain fixed. This issue is not peculiar to this Council but is being faced by Councils nationwide. The SSC proposes to review the issue in consultation with other similar interested entities and to have recommendations for the Council within the next year. Until the review is completed, the SSC recommends rebuilding plans be based on existing rebuilding analyses.

A computer program has been developed by Dr. Andre Punt to perform routine rebuilding calculations specified by the SSC (Punt, A.E., 2001 draft. SSC default rebuilding analysis. Technical specifications and user manual. Version 1.0000001. 12 p.). The calculations in the program have been developed and validated in collaboration with Dr. Alec MacCall. The program also produces thorough documentation of data and methodologies used. This program will provide a standard for comparing rebuilding analyses and is endorsed by the SSC.

Specific comments on rebuilding plans are as follows:

Widow rockfish – Dr. Alec MacCall provided a revised rebuilding analysis for widow rockfish. The SSC recommends this analysis be used to develop the rebuilding plan. The current rebuilding schedule for widow rockfish implies a large increase in allowable fishing rates once rebuilding is achieved. At the Council's request, Dr. MacCall has provided an alternative schedule with a harvest rate that increases as rebuilding progresses, with time to rebuilding being the same as the fixed rate option. The trade-off is that initial harvests must be lowered to offset the later increases.

Lingcod – The lingcod rebuilding plan is based on the 1997 stock assessment, covering the northern area and extending into Canada. New assessments were conducted in 1999 (southern area) and 2000 (southern and northern areas). Information from the latter assessments has not been formally incorporated into an updated rebuilding analysis. As a result, the rebuilding plan is not consistent with the most recent stock assessments. In keeping with its general recommendations in this regard, the SSC recommends the existing lingcod rebuilding analysis be used in the rebuilding plan, with updates and revisions delayed until the SSC has the opportunity to establish general guidelines for revising and updating rebuilding analyses.

Darkblotched rockfish – The rebuilding analysis for darkblotched rockfish includes 12 alternatives based on random selection of actual recruits or recruits per spawn for three different time periods: 1963-1998 (all years), 1984-1998 (recent years) and 1984-1994 (recent years minus the 1995-1998 period for which the recruitment projections are based on more limited information). For 10 of the alternatives, median rebuilding time with no fishing is 7-9 years and the rebuilding time frame is 10 years. For the remaining two options, median rebuilding time with no fishing is 10 years, with a rebuilding time frame of 43 years. These latter options are based on time periods that eliminate (1984-1994) or downplay (1963-1998) the probability that the high recruits per spawn estimated for 1995-1996 will recur in the next 10 years.

The rebuilding plan must be adopted by November 2001. Already new information has become available from the 2000 Miller Freeman Research Vessel survey that would affect the analysis. In addition to providing 12 alternatives, the rebuilding author also provides a preliminary analysis that includes this most recent survey data and is based on the 1984-1998 time period. The results of this preliminary analysis suggest a median rebuilding time without fishing of 11 years and a rebuilding time frame of 44 years. The SSC recommends the 2000 survey data be incorporated into the rebuilding plan. This may necessitate accelerated reading of age structures from the 2000 survey data. In addition, resampling for projections should be based on 1984-1994 (rather than 1984-1998) recruitments, because more recent years are poorly estimated and recruits per spawner exhibit a trend. The best choice of  $B_0$  is not clear. The revised analysis should continue to present results based on both  $B_0$  alternatives, while providing a more detailed rationale for each.

POP – A new rebuilding plan conforming to the guidelines set by the SSC is needed to finalize the POP rebuilding plan. With the recent development of a standardized program for conducting such analysis (Punt 2001), this task is much simplified. The SSC groundfish subcommittee will work with the stock assessment author to ensure a new rebuilding analysis is completed by the September meeting.

#### Marine Reserves

## Marine Reserves in the Channel Islands National Marine Sanctuary

The SSC was briefed by Mr. Sean Hastings and Dr. Satie Airame from the Channel Island National Marine Sanctuary (CINMS) about ongoing efforts to create a network of marine reserves within the Sanctuary's boundaries. The SSC first considered the contents of the Facilitator's Report (Exhibit E.2, Supplemental Attachment 3), which has been provided to the Sanctuary Advisory Committee (SAC) in lieu of a consensus recommendation by the Marine Reserves Working Group (MRWG). The Facilitator's Report highlighted a number of areas of substantial agreement among members of the MRWG (e.g., a general statement of the problem, issues of concern, goals and objectives, and implementation recommendations). However, the MRWG was unable to reach consensus on a number of important issues, including 1) the size of reserves, 2) the location of reserves, 3) the use of "limited take" areas, 4) the phasing in of reserves, and 5) the importance of fisheries management outside of reserves. The divergence in opinion within the MRWG, with respect to reserve size, led to a range of alternatives between a 12%-24% area set aside. Because the MRWG could not reach a unanimous consensus, the SAC is now charged with forwarding a recommendation to the Sanctuary manager for action.

The SSC was impressed with the depth of thought that has gone into the process thus far. In particular, the formalized effort to balance the various stakeholders' concerns should provide robust solutions to differences among user groups. It is clear that a thorough consideration of issues has been completed, particularly with regard to the development and reconciliation of siting criteria. The SSC believes the process, as it has evolved, could prove useful in future efforts to establish marine reserves elsewhere, including areas under Council authority. However, the infrastructure required to undertake a similar process is substantial and would require a significant allocation of scarce Council resources.

In response to the Council's and SSC's request for more information following the April meeting (see Exhibit E.2, Attachment 1), Mr. Hastings and Dr. Airame provided the SSC with many of the scientific papers that were considered by the Sanctuary Science Panel in reaching its determination that a 30%-50% area set aside was required to meet fishery management objectives within the CINMS. However, the conclusions one might draw from that body of literature are largely predicated on loose or negligible

controls on fishing effort outside of reserve boundaries, a situation unlike that on the West Coast of the United States. In fact, an evaluation of the costs and benefits of effort versus area controls on fishing is lacking in the documentation provided thus far. This is a key issue since the Council has recently imposed highly restrictive controls on fishing effort in the groundfish fishery and, as a consequence, the necessity of 30%-50% area set asides for the purpose of managing groundfish species is not obvious. At the request of the SSC, Dr. Airame agreed to provide further documentation on how the Sanctuary Science Panel arrived at its conclusions regarding reserve size. For its part, the SSC expressed a willingness to establish an ad hoc committee at the direction of the Council, specifically to evaluate the justification for large marine reserves to achieve fisheries management objectives for Council fishery management plan species.

The SSC has also received a draft report on the socioeconomic effects of alternative reserve options and has requested it receive the final report, once it is completed. The SSC socioeconomic subcommittee will review that report, once it is received.

It is very important that further dialogue continue between representatives of the CINMS and members of the Council family. The extensive groundwork that has already been laid could provide the framework for future efforts by the Council to establish marine protected areas of its own. Although the amount of reserve area under consideration by the Sanctuary is relatively small, the action is precedent setting, and a thorough consideration of issues is warranted.

# **Highly Migratory Species**

Public Review Draft of the Highly Migratory Species (HMS) Fishery Management Plan (FMP)

The SSC's Highly Migratory Species (HMS) Subcommittee met on June 10 to review the "Draft FMP and Environmental Impact Statement (EIS) for U.S. West Coast Based Fisheries for Highly Migratory Species," dated May 2001. This statement represents the outcome of the SSC's consideration of the HMS Subcommittee's findings.

#### General Comments and Recommendations

The draft FMP represents significant progress toward development of a management plan for HMS. For instance, the fishery descriptions (Section 2) and discussions of bycatch by fishery sector (Section 5) are well developed. The SSC recognizes the HMS Plan Development Team (HMSPDT) attempted to include in the FMP all management options identified during the scoping process to comply with National Environmental Protection Act (NEPA) requirements. However, many of the options contained in Section 8 take the form of brief conceptual descriptions of logbook/observer programs, limited entry options, and longline fishing options in the exclusive economic zone (EEZ); and the analysis of such options is very limited. These issues are complex and likely to have significant repercussions for HMS fisheries. The options will need to be more fully developed and the analyses considerably expanded in order to meet NEPA requirements and be considered for implementation by the Council.

Development of the draft FMP has been a daunting task, and development and analysis of the ninety options contained in the FMP will require considerably more time and resources. The SSC fully appreciates the importance of issues such as logbook/observer programs, limited entry, and longline fishing in the EEZ. However, if the Council wishes to move forward expeditiously with the draft FMP, the SSC recommends the scope of the FMP be initially limited to addressing minimum requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) — such as maximum sustainable yield (MSY)/optimum yield (OY) control rules, bycatch, essential fish habitat, and community impacts. Given the importance of "federalizing" the fisheries in some manner, the FMP could also include measures that achieve such federalization. However, depending on how soon the Council wishes to submit the draft FMP for public comment, it may be advisable to exclude options that affect fisheries in ways that deviate significantly from the status quo and that would require major elaboration and analysis to meet NEPA requirements. The Council could framework the management tools needed to address substantive issues not addressed in the draft FMP. Once the FMP is approved, subsequent amendments could be undertaken to address those issues.

In terms of addressing Magnuson-Stevens Act requirements, the draft FMP appears to provide considerable material for addressing the MSY and bycatch provisions of the Act. However, the sections of the FMP on the Characteristics of Support Industries and Communities and the Regulatory Flexibility Act (RFA) analysis are requirements under the Magnuson-Stevens Act and need completion before the plan is made available for public comment. The RFA analysis currently contained in the draft FMP is largely limited to assertions that the options will not have a disproportionate impact on small entities. The RFA analysis will need to address other considerations as well. For instance, the analysis will have to document whether a substantial number of small entities are affected by the proposed management actions. It would also have to explain why the preferred option was selected over other options that would minimize economic effects on small entities and, if so, why the preferred option was selected instead. RFA requirements are specified in NMFS Guidelines for Economic Analysis of Fishery Management Actions, dated August 16, 2000.

The SSC also has comments on specific sections of the draft FMP, as follows:

## <u>Section 2.4 – Characteristics of Support Industries and Communities</u> (p. 27)

A placeholder for this section is included in the draft FMP, but the section is not yet completed. It is important the Magnuson-Stevens Act requirement to consider community effects be addressed before the FMP is distributed for public comment.

## Section 3 – Status of Fish Stocks

The SSC reviewed the aspects of the draft FMP related to evaluating the status of stocks relative to overfishing criteria. The SSC supports the MSY and OY control rules developed for the HMS, but recommends they be presented separately for each management unit species to improve clarity of presentation.

The lack of information for some species will lead to considerable uncertainty when determining stock status using the control rules. This means that any determinations regarding whether overfishing is occurring or stocks are overfished will be highly uncertain. The SSC recommends the draft FMP link the data/analysis requirements identified in FMP Section 8.7 more directly with the need to classify stocks using the control rules and to implement any resultant management actions. In particular, the SSC notes that estimates of the catches off Mexico are not available, increasing uncertainty substantially for some species.

The information in Table 3.3 should be restricted to the estimates derived from analyses of data rather than those based on assumptions about the ratio of  $B_{MSY}$  to  $B_{O}$ , estimates of the intrinsic rate of growth should be replaced by the qualitative conclusions that can be inferred robustly from the analyses based on demographic models. The information presented does not permit a robust evaluation of the sustainability of regional catches of sharks and billfishes. The SSC recommends this be reflected in Table 3.4. The productivity estimates reported in the draft FMP are based on analyses in Au *et al.* (in press). The SSC should review these analyses.

The proposed MSY and OY control rules differ from those applied by international bodies such as Inter-American Tropical Tuna Commission (IATTC). The SSC recommends mechanisms be developed to deal with any possible conflicts in harvest guidelines that may arise from the use of different control rules.

Although the draft FMP does not specify an annual management cycle, an annual stock assessment and fishery evaluation (SAFE) document will be produced. The SSC recommends the SAFE document include summaries of available data and assessments by international bodies (e.g., tunas under the IATTC). The SSC notes further that the current assessment framework does not include an independent review process. While assessments conducted by international bodies are already subject to peer review, this is not the case for the proposed assessments for species that are not assessed by international bodies. The SSC recommends a process be developed for independent review of any such assessments; the SSC should be part of this process.

<u>Section 8.2 – Management Goals and Objectives (pp. 3-4) and Section 8.5.3 - Evaluation Factors</u> (pp. 15-16)

Section 8.2 describes 17 goals and objectives of the draft FMP and Section 8.5.3 describes 13 evaluation factors, which are used as the basis for evaluating management options contained in Section 8. Many of the 13 evaluation factors are worded similarly to some of the 17 goals and objectives; moreover, the twelfth evaluation factor ("meeting the objectives of the HMS FMP") ensures all of the goals and objectives not already mentioned are encompassed in the evaluation factors. Some clarification is needed regarding why

the distinction is made between the FMP goals and objectives and the evaluation factors. Also, despite the fact many of the management options contained in the draft FMP have significant allocation implications, none of the goals and objectives directly point to the need for fairness and equity in allocation decisions.

#### Section 8.5.4 – Elements of Economic Analysis

Sections 8.5.4.1 and 8.5.4.2 provide a discussion of theoretical concepts relevant to economic analysis. Expectations are subsequently raised regarding the presence of an analysis in the FMP that applies these theoretical concepts. For instance, Section 8.5.4.3 makes reference to "economic analyses that follow". Section 8.5.4.4 states that "A seven percent real discount rate is used in the analysis below....". However, subsequent sections of the FMP contain no such economic analysis. Unless such analysis is completed and subject to SSC review before the draft FMP is submitted for public comment, the SSC recommends Section 8.5.4 be removed from the FMP.

# <u>Section 8.5.5.1.2 – Licensing</u> (pp. 25-28)

Federal permits for commercial HMS fishing vessels are discussed in options 70-71, federal recreational permits for HMS anglers in option 72 and federal and/or state permits for HMS recreational vessels (including private boats) in options 73-74.

The SSC agrees with the HMSPDT's conclusions regarding the potential research, conservation, and management benefits of having a permit system that allows ready identification of all HMS fishery participants. However, the SSC does not agree with the conclusion that federal permits as specified in options 70-74 would "indirectly contribute to reducing fishing mortality" (a claim which appears to be based on the assumption that increased information necessarily results in additional harvest restrictions). It is also not clear why federal permits would "increase net benefits to the nation." Decisions regarding these options will require close collaboration with the states and a careful delineation of costs. Costs of federal permits for recreational anglers may be particularly difficult to predict, given the unprecedented nature of such a program.

## Section 8.5.5.1.3 – Reporting/Monitoring Requirements (pp. 29-32)

Options 76-77 pertain to logbooks, options 78-79 to observer programs, option 80 to a "comprehensive at-sea data collection plan" and option 81 to vessel monitoring systems (VMS).

All of these options are presented as ideas for which programs would need to be developed. The analysis of these options indicates that "limited expenses" would be imposed on fishing entities, and the options would "not have a disproportionate effect" on small relative to large entities. This may or may not be true, depending on the specific details of the monitoring programs.

<u>Sections 8.5.5.2 – Surface Hook-and-Line Fishery</u> (pp. 33-36), <u>Section 8.5.5.3 - Drift Gill Net Fishery</u> (pp. 36-46) and <u>Section 8.5.5.5 - Longline Fisheries</u> (pp. 47-52)

These sections of the draft FMP include a discussion of open access versus limited entry options for three fishery sectors – surface hook-and-line (options 14-15), drift gillnet (options 22-24) and longline (option 43) fisheries. Section 8.5.5.5 also includes additional options pertaining to longline fishing in the EEZ (options 38-42).

The SSC strongly supports consideration of management measures that address overcapacity in HMS fisheries. However, the limited entry options described in the draft FMP are only conceptual in their current form. The SSC is aware of the Council's expressed intention to consider limited entry after the FMP is adopted. Numerous details of limited entry options would have to be developed and analyzed at that time.

The analysis of options 22-24 includes a discussion of the effects on the drift gillnet fishery of a Biological Opinion (BO) issued by NMFS to protect leatherback turtles. Although such information is relevant to understanding the status of that fishery, it is important the analysis also explicitly distinguish between the effects of the BO (which was authorized by the Endangered Species Act) and the effects of the fishery management options being considered under the Magnuson-Stevens Act.

The analysis of option 41, which would allow pelagic longline fishing in the EEZ under an exempted fishing permit (EFP) program, focuses on the potential benefits afforded by the opportunity to gather scientific and/or fishery information. The analysis should also indicate that a prohibition on longline fishing in the EEZ (as delineated in option 40) would be a necessary pre-condition for establishment of an EFP program and should include an evaluation of the effects of such prohibition on the longline fishery.

#### Section 8.5.5.8 – Recreational Fisheries (pp. 57-62)

This section includes options for federalizing management of the recreational fishery (options 61-62). Option 61 may have potentially significant ramifications, for instance, in terms of the role of the state fish and game commissions relative to federal management, changes in state legislation or regulations needed to authorize or facilitate federalization, analysis and actions needed to ensure (as specified in the draft FMP) that "the regulations would have to be made consistent with the Magnuson-Stevens Act" (p. 60). Such ramifications will need to be more fully understood in order to evaluate the feasibility, desirability, and costs associated with this option.

# <u>Section 8.5.6 – Measures to Establish Harvest Quotas</u> (pp. 68-69)

Option 90 appears to pertain to two separate issues, (1) how to establish total harvest quotas for vulnerable species on the basis of an OY proxy, and (2) how the distribution of such quotas between commercial and recreational sectors should be based on historical landings. (1) is a scientific issue and (2) is an allocation issue for which historical landings represents one of any number of allocation criteria that could be considered. Given the potentially significant consequences of these issues, the SSC recommends the Council not take action on Option 90 until these issues are further developed, analyzed, and reviewed.

<u>Section 8.5.7 – Standardized Reporting of Bycatch and Measures to Minimize Bycatch</u> (pp. 70-85) There is no discussion of standardized reporting in this section. The SSC recommends that reference be made in this section to the logbook/observer program/VMS options previously described in Section 8.5.5.1.3 (pp. 29-32), given the potential importance of such programs for reporting bycatch.

Options 16, 27, 44, and 56 respectively propose that performance standards be adopted that provide incentives to reduce bycatch for participants in the surface hook-and-line, drift gillnet, longline, and coastal purse seine fisheries. According to the FMP, "Performance standards can be expressed as a percentage of the total catch by weight or number as well as specific goals for individual species of particular concern" (pp. 8-70). The SSC notes that performance standards of this type may reflect not only the effect of bycatch avoidance measures, but also changes in stock abundance of bycatch species and regulatory measures such as trip limits.

## Section 8.7 – Research and Data Needed for Management (pp. 90-97)

The information needs for each species consist of a lengthy list that includes items that are critical for management and those that would be "nice to know." The SSC recommends the HMSPDT prioritize the items in the list, based on the requirements for conducting assessments, applying MSY and OY control rules, and conducting economic analysis of pending management actions. This will be particularly important for ensuring that critical HMS needs are incorporated in the Council's Research and Data Needs and Economic Data Plan.

## Minor Editorial Corrections

In Section 8, reference is made to an "Option 6" in the second to last paragraph on p. 42 and in the first and second paragraphs on p. 43. What is Option 6?

Section 8 states "The Council is currently considering under the Coastal Pelagics Amendment an option of evaluating the use of grates to cover openings of holds through which fish are pumped..." (p. 67). The statement should be edited to reflect the fact that use of such grates has been approved.

Some of the research and data needs identified in Section 8.7 (pp. 90-97) are lettered, while others are

bulleted. The distinction between lettered and bulleted items should be clarified.

The title of Section 8.8 on p. 97 (MSFCMA Specifications) should be renamed something that specifically refers to total allowable level of foreign fishing, as it deals only with that one issue.

## **Coastal Pelagic Species**

Pacific Mackerel Harvest Guideline and Other Specifications for 2002

Dr. Kevin Hill discussed the 2001-2002 Pacific mackerel harvest guideline (HG) with the SSC. The recommended HG is 13,837 mt. The Coastal Pelagic Species Management Team (CPSMT) recommends closing the directed fishery after 6,000 mt is landed, then switching to an incidental tolerance of 45% of mackerel in other coastal pelagic species fisheries. If a significant portion of the HG remains, a directed fishery would re-open toward the end of the season.

The SSC notes that the HG is based on the same stock assessment methodology used in 2000, with the addition of one new data point. This methodology is scheduled to be reviewed by a stock assessment review panel in 2002.

Market Squid Maximum Sustainable Yield (MSY) Methodology Review Workshop

Ms. Thomson provided a verbal report to the Council. She noted that the workshop was well attended, and the review panel accomplished their goals and objectives. Discussions included biology of market squid, status of the squid fishery, and potential management strategies. Modeling methods also received much attention. She reported the Panel expects to complete their report in time for SSC review at the September Council meeting.

## **Public Comment**

There was no formal public comment.

## **Adjournment**

The SSC adjourned at approximately 4 p.m., Tuesday, June 12, 2001.

PFMC 08/22/01