

DRAFT SUMMARY MINUTES
Scientific and Statistical Committee

Pacific Fishery Management Council
Crowne Plaza Hotel
Drake I Room
1221 Chess Drive
Foster City, CA 94404
650-570-5700
September 11-12, 2006

Call to Order and Scientific and Statistical Committee (SSC) Administrative Matters

The meeting was called to order at 8 a.m. Dr. Donald McIsaac briefed the SSC on priority agenda items. Dr. McIsaac notified the SSC of a request for the SSC to discuss the data to be used in the updated yelloweye rockfish assessment scheduled to be complete in 2007 by the Washington Department of Fish and Wildlife (WDFW). The SSC scheduled a brief discussion of the matter immediately following the closed session.

Dr. Kevin Hill announced that this meeting will be his last as an SSC member. Dr. Hill stated he will continue his work on the Coastal Pelagic Species Management Team and looks forward to working with the SSC in this capacity in the future. Dr. Ramon Conser will replace Dr. Hill in the National Marine Fisheries Service, Southwest Fisheries Science Center seat leaving his current At-Large seat vacant. The SSC thanked Dr. Hill for more than eight years of service on the SSC including his service as SSC Chair in 2004-2005.

Subcommittee assignments for 2006 are detailed in the table at the end of this document.

Members in Attendance

Mr. Tom Barnes, California Department on Fish and Game, La Jolla, CA
Mr. Robert Conrad, Northwest Indian Fisheries Commission, Olympia, WA
Dr. Michael Dalton, California State University, Monterey Bay, CA
Dr. Martin Dorn, National Marine Fisheries Service, Seattle, WA
Dr. Owen Hamel, National Marine Fisheries Service, Seattle, WA
Dr. Kevin Hill, National Marine Fisheries Service, La Jolla, CA
Mr. Tom Jagielo, Washington Department of Fish and Wildlife, Olympia, WA
Dr. Peter Lawson, National Marine Fisheries Service, Newport, OR
Dr. André Punt, University of Washington, Seattle, WA
Dr. Hans Radtke, Yachats, OR
Dr. Steven Ralston, National Marine Fisheries Service, Santa Cruz, CA
Dr. David Sampson, Oregon State University, Newport, OR
Ms. Cynthia Thomson, National Marine Fisheries Service, Santa Cruz, CA

Members Absent

Mr. Steve Berkeley, University of California, Santa Cruz, CA
Dr. Ramon Conser, National Marine Fisheries Service, La Jolla, CA

Scientific and Statistical Committee Comments to the Council

The following is a compilation of June 2006 SSC reports to the Council. (Related SSC discussion not included in written comment to the Council is provided in *italicized text*).

Council Administrative Matters

B.5 Appointments to Advisory Bodies, Standing Committees, and Other Forums for the 2007-2009 Term, Including any Necessary Changes to Council Operating Procedures

There are two areas of expertise that the Scientific and Statistical Committee (SSC) currently lacks that may be important to the SSC in the future:

1. fisheries sociology/anthropology, and
2. fisheries oceanography.

Informational Report 3, “Social Science in the Pacific Fishery Management Council Process”, submitted to the Council at this meeting provides reasons for considering the appointment of a fisheries sociologist/anthropologist to the SSC. The fisheries sociologist should have the expertise needed to evaluate the effects of management changes on fishing communities. A fisheries oceanographer would be a valuable addition to the SSC as ecosystem-based management concepts are increasingly considered by the Council in its management process.

The current staffing level (number of seats) and composition of the SSC meets its present needs with regards to expertise and work load. Replacing existing seats with the requested new positions would impact the SSC’s ability to deal with its annual work load of groundfish and salmon issues. Therefore, we request that two new at-large seats on the SSC be created. This addition of seats would require a change to the Council Operating Procedures for the SSC.

Finally, with the departure of Dr. Kevin Hill and Mr. Alan Byrne from the SSC, the SSC notes that its salmon expertise will be reduced. Replacing this expertise should be considered when deciding upon appointments to the SSC.

SSC Administrative Matters

Notes on WDFW request to allow use of catch and effort data from halibut trips in the 2007 yelloweye rockfish stock assessment update

The SSC was briefed by Mr. Brian Culver about concerns that WDFW has raised about the use of recreational CPUE data in the yelloweye rockfish stock assessment update that will be completed next year (see Agenda Item C.1.B, Supplemental WDFW Report, September 2006). Specifically, the last stock assessment restricted State of Washington CPUE calculations to bottom-fish-only (BOF) fishing trips and excluded those trips that targeted halibut, although both BOF and halibut trips were used in generating CPUE statistics for the State of Oregon. Due to severe impacts from the very restrictive management regime that is needed to recover the yelloweye rockfish stock, WDFW has suggested that “the stock assessment team consider adding Washington recreational catch-per-

unit-of-effort (CPUE) data from halibut trips.”

After discussing this issue at some length the SSC concluded that it would be inadvisable to alter the data in the manner suggested by WDFW as part of a stock assessment update, which has very stringent requirements that the SSC is reluctant to relax. Specifically, the recently adopted Terms of Reference for Groundfish Stock Assessments stipulates that to qualify as an update “a stock assessment must carry forward its fundamental structure from a model that was previously reviewed and endorsed by a STAR panel. In practice this means similarity in: (a) the particular sources of data used, (b) the analytical methods used to summarize data prior to input to the model.” Instead, as a potential solution to this problem, it was decided that the STAT team should proceed by: (1) preparing a stock assessment update that adheres to the existing Terms of Reference, (2) conduct a sensitivity run of the base model that incorporates the altered CPUE time series that includes halibut trips, and (3) presents those findings to the SSC groundfish subcommittee during its review of stock assessment updates that is tentatively scheduled to follow the June 2007 meeting. Depending on the results of the sensitivity run, as well as on whatever other competing demands arise during the course of the 5 STAR panels that are planned for the spring/summer of 2007, the groundfish sub-committee may elect to refer the issue to the “mop-up” panel for more thorough evaluation.

Pacific Halibut Management

G.2. Pacific Halibut Bycatch Estimate for International Pacific Halibut Commission Adoption

Dr. Jim Hastie (NWFSC) briefed the Scientific and Statistical Committee (SSC) on estimates of halibut bycatch for 2005 as described in the report by Wallace and Hastie (August 2006). Estimated total halibut discard mortality increased by 46 percent from 2004 to 2005. The increase may be an unintended consequence of liberalized trip limits and expanded fishing opportunities shoreward of the Rockfish Conservation Area (RCA) that were made possible in 2005 by mandatory use of selective flatfish gear. Although total trawl effort increased by only 5%, trawl effort inside 150 fm increased by almost 50 percent. The SSC endorses the use of the report’s bycatch estimates in evaluating the impact of Council-managed fisheries on the Pacific halibut stock.

Halibut bycatch varies by season, depth, latitude, and the proportion of arrowtooth flounder in the catch. Halibut bycatch rates were estimated by strata defined by these factors. Further analyses should be based on strata definitions that also reflect prevailing spatial management measures. For example, seasonal changes in the shoreward limit of the RCA would provide a basis for corresponding seasonal strata for bycatch estimation. The SSC again requests that 1) variance estimates of total bycatch be provided, and 2) observer data for other Council-managed fisheries be evaluated. In particular, halibut bycatch estimates for the fixed gear fleet should be considered.

The SSC has reviewed the Pacific halibut bycatch report each year now for several years. If estimation methods continue to be routine, additional review by the SSC may not be needed.

Highly Migratory Species Management

E.2. NMFS Report - SSC review of Yellowfin Tuna Stock Status Report

Dr Mark Maunder (Inter-American Tropical Tuna Commission) briefed the SSC on the stock assessment conducted for yellowfin tuna in the Eastern Tropical Pacific. The results in document E.2.a, Attachment 6 are slightly different from those presented to the SSC. The SSC reviewed the assessment, noting that there is currently no Terms of Reference document for HMS stock assessments. The report on the yellowfin tuna stock assessment, however, includes most of the information typically included in a stock assessment report used for Council decision-making and hence could be reviewed by the SSC. Based on its review of the assessment, the SSC endorses the assessment, and its use for status-determination purposes.

The SSC notes that the stock assessment is not spatially-structured although the length-frequency of yellowfin catches differ spatially, and by gear-type. The SSC is unclear whether the impact of not having a spatially-explicit model is substantial, but recommends that this issue be examined as part of future assessments.

The assessment indicates that the stock has been relatively stable since 1984. For the base-case assessment, the stock is estimated to be close to B_{MSY} with a fishing intensity slightly above F_{MSY} , i.e. under the base-case assessment overfishing is occurring, but the stock is not in an overfished state. The base-case assessment assumes that recruitment is independent of spawning biomass (i.e. steepness equals one). The extent to which fishing intensity exceeds F_{MSY} depends on the relationship between spawning biomass and recruitment; the lower the value of steepness, the greater the implied extent of overfishing. Dr Maunder noted that steepness for yellowfin tuna was unlikely to be one, but that it was also unlikely to be much lower than one.

The recruitment used in the calculation of B_{MSY} is the average over the entire period considered in the assessment. However, Dr Maunder noted that the results of the assessment are consistent with a change in average recruitment in about 1984. The value of B_{MSY} would have been higher had it been based on recent (post-1983) recruitment. The SSC was not able to determine whether the stock would be estimated to be currently below B_{MSY} had B_{MSY} been defined this way.

Finally, the SSC notes that, at present, very few US-flagged vessels operate in the commercial fishery for yellowfin tuna and hence that multi-national management arrangements are needed to stop overfishing.

Suggested issues to investigate:

- *The double-domed selection curves seem unrealistic. The reasons why the model estimates such selection patterns should be determined.*
- *The data for each fleet should be summarized in a tabular format.*
- *The impact of ignoring spatial-structure when conducting assessments of yellowfin tuna should be examined.*
- *The results of the assessment are likely to depend critically on the assumption that growth is time-invariant. The evidence for, and implications of, time-varying growth should be examined.*

- *There should be an Investigation of a sex-structured population dynamics model fitted to data on sex-specific length-frequency (if available).*
- *Future assessments should examine the reasons for, and implications of, the apparent cohorts in the length-frequency data that the model is unable to capture.*

Groundfish Management

C.7. Trawl Individual Quotas—Stage I Alternatives and Progress Report on Stage II

Jim Seger (Pacific Fishery Management Council [PFMC]) and Marcus Hartley (Northern Economics Inc.) briefed the Scientific and Statistical Committee (SSC) on the status of Stage I of the Trawl Individual Quota (TIQ) Program Analysis and provided an update of the plan of work for Stage II.

The SSC provided some specific comments on the Stage I document during the June 2006 PFMC meeting (see attached SSC Statement). These comments remain germane as the analysis moves toward Stage II. The SSC has several additional comments on the Stage I document and the presentation by Seger and Hartley.

- Some simplification of the alternatives has been accomplished. However, the links between the performance measures, the management regime alternatives, and the program goals are not clear.
- Although the implementation of a TIQ or a permit stacking program is not anticipated to have a marked impact on the likely status and trends of groundfish stocks, changes to the spatial distribution of catch may have biological implications. The SSC notes that existing analytical tools (e.g., stock assessments and rebuilding analyses) could be used to assess the effects of the different programs.
- The Stage II analysis will assume constant 2005 prices of affected species. Other TIQ programs (e.g., in Alaska) have resulted in changes to ex-vessel as well as market prices. Therefore, some sensitivity analysis of possible price changes should be undertaken. If such analyses are not possible, the document should at least include a discussion of price changes experienced in other programs that may be relevant, and whether similar changes might be expected.
- Accumulation leading to concentration of quota shares and/or market power is a real risk of any TIQ program. Information on ownership of vessels and processing plants is available through public and NMFS sources. The amount of present and potential concentration should be included in the analysis.
- The impact of TIQ programs on catches of overfished species is proposed to be analyzed by assuming that between 25% and 50% of the tows with the highest bycatch rates are eliminated. The justification for this range is not provided and use of an unduly high percentage may lead to overly optimistic expectations. Lower values for the reduction in

bycatch of overfished species should be included in the analysis unless evidence in support of the lower end of the current range can be provided, for example from other TIQ programs.

Finally, the SSC wishes to restate that the complexity of the efficiency and equity trade-offs which are likely to occur in any ITQ program may lead to unforeseen consequences. A range of estimates for the potential efficiency gains (i.e. benefits) and costs of implementing should be available to inform the Council after the analysis proposed in the Stage I Draft document is complete.

SSC Administrative Matters, continued

A.4. Ecosystem-Based Management

There were no Briefing Book materials on this item and there will be no SSC statement to the Council on this subject at this meeting. To set the context for our discussions of ecosystem-based fishery management (EBFM) Mike Burner informed the SSC that the Council in June had charged the SSC with conducting a literature review of EBFM and had requested a joint meeting of the SSC and Habitat Committee to discuss EBFM and possible strategies for its implementation. To date the SSC's Ecosystem-based Management Subcommittee has not met to discuss approaches to EBFM that might be appropriate for the Council's consideration. In general there does not appear to be any general consensus among the SSC members regarding EBFM and what it might entail.

To generate some forward progress on the topic of EBFM, the SSC received presentations from Steve Ralston on "Recent results of NMFS midwater trawl surveys off the US West Coast", which showed changing patterns of abundance and latitudinal distribution of ten young-of-year rockfish species, and from Dr Dr Frank Schwing (SWFSC, Environmental Research Division Director) on "Recent oceanographic and ecosystem considerations off the US West Coast", which showed changing biological signals (e.g., abundance of forage fish and krill) and physical processes (e.g., timing of the spring transition, cumulative upwelling, El Nino-like conditions without any El Nino event). Together these two presentations suggest that there have been important system-wide changes in the productivity of the California Current System that almost certainly will have impacts on commercially important fish species managed by the Council.

Subsequent to the presentations the following points were brought up during SSC discussions:

- Relative to the traditional single-stock approach to assessment and management, an EBFM approach would take a more integrated view of how biological and physical factors influence individual fish stocks.*
- Currently there are some Council examples of incorporating environmental variables in management actions (sardine harvest control rule) or stock assessments (environmental driver of recruitment deviations in the sablefish assessment).*
- The issue for stock assessments is whether adding environmental data will increase the information content or the noise. How does one evaluate this?*

- *If stock productivity is governed by measurable environmental variations, then these environmental variables may need to be considered explicitly in management reference points (e.g., B_0 , B_{MSY}). What is B_{MSY} in the context of EBFM?*
- *Having available a suite of environmental variables or trends in multiple species provides a broader context for viewing the results of single-species assessments.*
- *Synchrony in recruitment deviations from different assessments may provide indications of shared ecosystem influences, and may provide data that could inform new stock assessments.*
- *It may be possible to use information on stock assemblages to infer likely changes in unassessed or data-poor stocks.*
- *Fundamental impediment to EBFM is deciding on appropriate management objectives. What mechanism is there to evaluate trade-offs between competing goals?*
- *The process of developing EBFM will be evolutionary. Education of the Council and its advisory bodies would be very useful at moving things forward.*
- *The Council should take a broader view of EBFM than just the context of the individual FMPs. EBFM should explore issues that cut across the traditional FMP categories.*

Council Administrative Matters, continued

B1. Future Council Meeting Agenda Planning

In June, the Council requested that the Scientific and Statistic Committee (SSC) and Habitat Committee (HC) compile information on possible ecosystem-based approaches to management. The SSC welcomes future interaction with the HC and recommends that during the November meeting the Council and its advisory bodies receive a briefing on the paper "Ecosystem based fisheries management: some practical suggestions", by Marasco, Goodman, Grimes, Lawson, Punt, and Quinn. Two of the authors, who are members of the SSC (Drs Pete Lawson and Andre Punt), could provide the Council with a presentation on the paper.

During its September meeting, the SSC received two presentations regarding environmental conditions off the West Coast. Dr. Steve Ralston of the Southwest Fisheries Science Center (SWFSC) presented "Recent results of NMFS midwater trawl surveys off the US West Coast", which showed changing patterns of abundance and latitudinal distribution of ten young-of-year rockfish species. Dr. Frank Schwing (SWFSC) presented "Recent oceanographic and ecosystem considerations off the US West Coast", which showed changing biological signals (e.g., abundance of forage fish and krill) and physical processes in the ocean (e.g., timing of the spring transition, cumulative upwelling, El Nino-like conditions without any El Nino event). Together, these two presentations provide evidence of important recent changes in ocean conditions. The SSC recommends that the Council and its advisory bodies hear these presentations during the November meeting.

The SSC further recommends that the Council schedule a two-meeting process during November and March to review and approve the Coastal Pelagic Species (CPS) Stock Assessment Review STAR (STAR) process Terms of Reference. This schedule would precede two CPS STAR Panels scheduled for 2007.

SSC Administrative Matters, continued

A7. Off-Year Science Workshop Planning

Under this agenda item, the SSC discussed three topics: 1) the status of preparation for the Bzero workshop to be held in December, 2) Observations by SSC members who attended the recent RecFIN Data workshop, and 3) Plans for the upcoming NWFSC Trawl Survey workshop in late October.

Bzero Workshop

Dr. Martin Dorn presented an overview of the draft Terms of Reference developed for the Bzero workshop. They are:

- 1. Evaluate the performance of the 40-10 harvest policy for stocks with different life history and stock-recruit patterns.*
- 2. Evaluate alternative methods to estimate Bzero and BMSY proxies and provide recommendations on their use.*
- 3. Provide recommendations on the use of priors for key assessment parameters in stock assessment models. Parameter for which priors could potentially be useful include natural mortality, stock-recruit steepness, survey catchability, and recruitment variability.*

A preliminary list of talks and papers to be presented at the workshop was discussed. To date, they are:

- *Melissa Haltuch, Andre Punt, Martin Dorn: Simulation testing alternative estimators of unfished stock size*
- *Michael Schirripa: Simulation testing estimators of sablefish biomass reference levels under decadal environmental variability*
- *Alec MacCall and John Field: Comparison of dynamic and static estimates of Bzero and stock depletion*
- *Owen Hamel: Advice on priors for natural mortality*
- *Martin Dorn: Advice on priors for stock-recruit steepness*
- *Martin Dorn: Review of methods of estimating biomass reference points used in harvest control rules employed by US Fisheries Management Councils*

Also discussed were options for pursuing publication of the papers submitted to the workshop. It was noted that participation of contributors from Australia and the North Pacific Fishery Management Council venues would be beneficial, due to the use of similar management control rules in those areas. It was agreed that, to get the most out of the workshop, all participants would need to conduct pre-meeting work, and they would need to come to the workshop with finished work products.

RecFIN Data Workshop

Several SSC members attended the recent workshop which was held to review RecFIN data. The meeting was attended by a wide variety of interested managers, scientists, and others, and thus was not a deep technical review sufficient to address some of the SSC's concerns about data quality, timeliness, access to data, and review. Ms. Cindy Thomson has taken the lead on drafting an SSC report on this issue for the November council meeting. Ms Thomson noted that the draft report will also address recommendations made by the NRC review of MRFSS.

NWFSC Trawl Survey Workshop

This workshop is scheduled for late October/ early November. Jim Hastie noted that a draft Terms of Reference document was in preparation but not yet available for review. Questions discussed were 1) Should assessments classified as updates be permitted to use indices of abundance derived from the new NWFSC survey? 2) What is the role of case studies (e.g. for English sole) at the workshop?, and 3) What is the best way to address linking the "old survey" data to the "new" survey data in stock assessments?

Council Administrative Matters, continued

B.6. Updated Research and Data Needs

The Scientific and Statistical Committee (SSC) had its first opportunity at this meeting to discuss the draft 2006-2008 Research and Data Needs document (Agenda Item B.6.a, Attachment 1) in its entirety. In addition to minor editorial changes, the SSC has made one substantive change to the document: the addition of Section 3.3 pertaining to emerging issues for salmon.

Given the abbreviated time frame for preparation of this document, the SSC requests that it be allowed to make additional changes to the document after the September Council meeting for inclusion in the public review draft. Specifically, the SSC would like to re-organize Section 5.0 (Highly Migratory Species) to better highlight the distinction between continuing and high priority issues, expand Section 5.3.1 to identify high priority needs for sharks, and add a new section for swordfish (including sea turtle bycatch). The SSC would also like to expand Section 4.0 (Coastal Pelagic Species) to include a discussion of progress to date on high priority issues relevant to Pacific sardine, Pacific mackerel and market squid.

The SSC requests that suggestions from other advisory bodies regarding Research and Data Needs be submitted to the Council in the form of specific wording changes to the document. This will facilitate timely completion of the document and ensure that advisory body comments are accurately captured. Also, the SSC has added a placeholder at the beginning of Section 6.3 for inclusion of additional social science information needs as discussed in the Council's July 2005 report *Social Science in the Pacific Fishery Management Council Process*. The SSC requests assistance from Council staff to ensure that Section 6.3 adequately captures the content of the July 2005 report.

Once these changes have been incorporated, the SSC approves the 2006-2008 Research and Data Needs for public review.

Salmon Management

H.1. Salmon Methodology Review

The Scientific and Statistical Committee (SSC) met with Mr. Larrie LaVoy (Model Evaluation Workgroup) and Mr. Chuck Tracy to identify items for review by the SSC Salmon Subcommittee at its October meeting. The following items were identified as ready for review:

- Chinook and Coho Fishery Regulation Assessment Model (FRAM) Documentation;
- Columbia River fall Chinook ocean abundance forecast;
- experimental design for near-shore commercial test fisheries.

The SSC Salmon Subcommittee will review these products in October prior to the full SSC meeting in November. As always, the SSC requires good documentation and ample review time to make efficient use of the SSC Salmon Subcommittee's time. Materials to be reviewed should be submitted at least two weeks prior to the scheduled review. Agencies should be responsible for ensuring that materials submitted to the SSC are technically sound, comprehensive, clearly documented, and identified by author.

H.2. FMP Amendment 15 (de minimis fisheries)

Ray Beamesderfer presented the analytical work undertaken to date for evaluating the biological effects of the various alternatives for *de minimis* fisheries on Klamath River fall Chinook salmon. Other members of the team presented economic analyses. The Scientific and Statistical Committee (SSC) commends the team for the amount of work accomplished since the last Council meeting, but notes that the work is not yet complete.

The general biological analysis approach is to define a range of options and then simulate the outcome of these management measures. These options included *de minimis* age-4 ocean impact rates of 16, 10, 5 and 2.5 percent as well as a sliding scale alternative. An alternative approach taken was to define the proportion of years in which to exceed the target, and then find a rate that achieves that goal. The larger the constant *de minimis* rate, the more often *de minimis* fisheries occur, and whenever *de minimis* fisheries occur, the projected post-fishing natural spawner escapement is less than 35,000.

The base model presented was roughly equivalent to Model 2 of the "Klamath River Fall Chinook Stock-Recruitment Analysis" report, as was suggested by the SSC at the June 2006 Council meeting, although there were some analysis errors which need to be addressed. Random changes and trends in in-river survivorship should be included in simulations, which will allow consideration of future changes in the state of the Klamath River basin.

The current analysis adequately models the difference between management action and implementation, i.e. target F and actual F, although including autocorrelation in this relationship would lead to more realistic results. Accounting for errors in preseason abundance estimation when setting target F would further increase the realism of the simulations.

The hindcast analysis does not include dynamics and therefore does not reflect the full effect of

changes in management strategies. For this reason the utility of this analysis is limited to a lower bound estimate of the frequency of *de minimis* fisheries which would have occurred under different management regimes.

The modeling exercise used to analyze the alternatives does not capture all the important issues. For example, the Klamath fall Chinook stock consists of several smaller populations, and low composite spawning escapement could lead to localized extinction and/or damage to long-term productivity due to inbreeding depression. Even with the introduction of depensation, the Ricker stock-recruit model may underestimate threats to the stock. For example, with the model it is impossible for the stock to go to extinction. Nor does the model reflect differences in fecundity with spawner age. The sensitivity analysis presented to the SSC consisted of one “pessimistic” alternative with a combination of factors which appears unrealistic. More realistic sensitivity analyses should be undertaken including such issues as changes in freshwater production and a stronger form of depensation.

The economic analysis would be made more clear by improved organization and should include analysis and some discussion of short-term vs. long term trade-offs. The SSC reiterates that this analytical approach is adequate for the comparison of the various alternatives, although the absolute numbers arrived at will be highly dependent upon the model assumptions. Given these concerns, at present only relative comparisons and outputs should be emphasized.

Public Comment

None.

Adjournment – The SSC adjourned at approximately 5 p.m., Tuesday, September 12, 2006.

PFMC
10/24/06

SSC Subcommittee Assignments for 2006

Salmon	Groundfish	CPS	HMS	Economic	Ecosystem-Based Management
Robert Conrad	Steve Berkeley	Tom Barnes	Tom Barnes	Michael Dalton	Tom Barnes
Owen Hamel	Ray Conser	Michael Dalton	Steve Berkeley	Hans Radtke	Steve Berkeley
Kevin Hill	Michael Dalton	Ray Conser	Robert Conrad	Cynthia Thomson	Michael Dalton
Pete Lawson	Martin Dorn	Tom Jagielo	Ray Conser	David Sampson	Martin Dorn
Hans Radtke	Owen Hamel	André Punt	Kevin Hill		Tom Jagielo
David Sampson	Tom Jagielo	Steve Ralston	André Punt		Pete Lawson
	André Punt		Hans Radtke		André Punt
	Steve Ralston				Steve Ralston
	David Sampson				Cynthia Thomson

Bold denotes Subcommittee Chairperson

PROPOSED AGENDA
Budget Committee

Pacific Fishery Management Council
Hilton San Diego/Del Mar Hotel
Equestrian Room
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 12, 2006

SUNDAY, NOVEMBER 12, 2006 – 4:00 P.M.

A. Call to Order and Approval of Agenda

Jerry Mallet, Chair

B. Executive Director's Budget Report

Donald McIsaac

1. Current Status of Funding and Expenditures for Calendar Year 2006 (2005-2009 Grant)
2. Potential Funding Scenarios for 2007
3. Recommendations

C. Budget Committee Recommendations

Jerry Mallet, Chair

D. Other Fiscal Issues

ADJOURN

PFMC
10/25/06

PROPOSED AGENDA
Groundfish Advisory Subpanel

Pacific Fishery Management Council
Hilton San Diego/Del Mar Hotel
Derby Room
15575 Jimmy Durante Blvd.
Del Mar, California 92014
858-792-5200
November 13-17, 2006

MONDAY, NOVEMBER 13, 2006 – 8 A.M.

A. Administrative Matters

(8 a.m.)

1. Roll Call, Introductions, Announcements, etc. Tom Ghio, Chair
2. Opening Remarks and Agenda Overview John DeVore
3. Approve Agenda

D. Groundfish Management

2. Groundfish Bycatch Work Plan Frank Lockhart
(8:30 a.m.; Report to the Council on Tuesday; Joint Session with the Groundfish Management Team)
4. Exempted Fishing Permits for 2007 Fisheries John DeVore
(10 a.m.; Report to the Council on Wednesday)
6. Shore-Based Whiting Monitoring Program Yvonne de Reynier
(11 a.m.; Report to the Council on Wednesday)
5. Consideration of Inseason Adjustments
(1 p.m.; Report to the Council on Wednesday; Joint Session with the Groundfish Management Team)
3. Groundfish Stock Assessments for 2007 John DeVore
(3 p.m.; Report to the Council on Wednesday)

B. Administrative Matters

2. Updated Research and Data Needs John Field
(4 p.m.; Report to the Council on Thursday)

TUESDAY, NOVEMBER 14, 2006 - 8 A.M.

A. Administrative Matters (continued)

4. Review Statements
(8 a.m.)

D. Groundfish Management (continued)

7. Intersector Allocation for Trawl Individual Quotas and Other Management Needs
(8:30 a.m.; Report to the Council on Thursday; Joint Session with the Groundfish Management Team) John DeVore

H. Marine Protected Areas

1. Channel Islands National Marine Sanctuary Marine Protected Areas
(11:30 a.m.; Report to the Council on Thursday; Joint Session with the Groundfish Management Team) Mike Burner

G. Pacific Halibut Management

1. Changes to Catch Sharing Plan and 2007 Annual Regulations
(1 p.m.; Report to the Council on Thursday) Michele Culver/
Don Bodenmiller

A. Administrative Matters (continued)

5. Update on the Trawl Individual Quota Program
(2 p.m.) Jim Seger

WEDNESDAY, NOVEMBER 15, 2006 - 8 A.M.

A. Administrative Matters (continued)

6. Review Statements
(8 a.m.)

D. Groundfish Management (continued)

8. Final Consideration of Inseason Adjustments, If Necessary
(2 p.m.; Report to the Council on Friday)

B. Administrative Matters (continued)

6. Council Three-Meeting Outlook, Draft March 2007 Council Meeting Agenda, and Workload Priorities
(3 p.m.; Report to the Council on Friday)

THURSDAY, NOVEMBER 16, 2006 - 8 A.M.

Groundfish Advisory Subpanel Meets as Necessary to Complete Their Business

ADJOURN

PFMC
10/26/06

PROPOSED AGENDA
Groundfish Management Team

Pacific Fishery Management Council
Hilton San Diego/Del Mar Hotel
Salon E
15575 Jimmy Durante Blvd.
Del Mar, California 92014
858-792-5200
November 13-17, 2006

MONDAY, NOVEMBER 13, 2006 – 8 A.M.

A. Administrative Matters

(8 a.m.)

1. Roll Call, Introductions, Announcements, etc.
2. Opening Remarks and Agenda Overview
3. Approve Agenda

Susan Ashcraft, Chair
Laura Bozzi

D. Groundfish Management

2. Groundfish Bycatch Work Plan
(8:45 a.m.; Report to the Council on Tuesday; Joint Session with the Groundfish Advisory Subpanel in the Derby Room)

Frank Lockhart

2. Groundfish Bycatch Work Plan
(9:30 a.m.)

5. Consideration of Inseason Adjustments
(10:30 a.m.; Report to the Council on Wednesday)

5. Consideration of Inseason Adjustments
(1 p.m.; Joint Session with the Groundfish Advisory SubPanel in the Derby Room)

3. Groundfish Stock Assessments for 2007
(4 p.m.; Report to the Council on Wednesday)

John DeVore

TUESDAY, NOVEMBER 14, 2006 - 8 A.M.

A. Administrative Matters (continued)

4. Review Statements
(8 a.m.)

D. Groundfish Management (continued)

7. Intersector Allocation for Trawl Individual Quotas and Other Management Needs
(8:30 a.m.; Report to the Council on Thursday; Joint Session with the Groundfish Advisory SubPanel in the Derby Room) John DeVore

B. Administrative Matters

2. Updated Research and Data Needs John Field
(10:30 a.m.; Report to the Council on Thursday)

H. Marine Protected Areas

1. Channel Islands National Marine Sanctuary Marine Protected Areas Mike Burner
(11:30 a.m.; Report to the Council on Thursday; Joint Session with the Groundfish Advisory SubPanel in the Derby Room)

D. Groundfish Management (continued)

4. Exempted Fishing Permits for 2007 Fisheries John DeVore
(1 p.m.; Report to the Council on Thursday)
6. Shore-Based Whiting Monitoring Program Yvonne de Reynier
(2 p.m.; Report to the Council on Wednesday)

WEDNESDAY, NOVEMBER 15, 2006 - 8 A.M.

A. Administrative Matters (continued)

5. Review Statements
(8 a.m.)

D. Groundfish Management (continued)

8. Final Consideration of Inseason Adjustments, If Necessary
(2 p.m.; Report to the Council on Friday)

THURSDAY, NOVEMBER 16, 2006 - 8 A.M.

A. Administrative Matters (continued)

6. Review Statements
(8 a.m.)

7. Update on the Trawl Individual Quota Program
(1 p.m.)

Jim Seger

B. Administrative Matters (continued)

6. Council Three-Meeting Outlook, Draft March 2007 Council Meeting Agenda, and
Workload Priorities
(3 p.m.; Report to the Council on Friday)

FRIDAY, NOVEMBER 17, 2006 - 8 A.M.

A. Administrative Matters (continued)

8. Review Statements
(8 a.m.)

ADJOURN

PFMC
10/26/06

PROPOSED AGENDA
Habitat Committee

Hilton Hotel Del Mar
Salon F
15575 Jimmy Durante Blvd.
Del Mar, California
Phone: (858) 792-5200
November 13, 2006

MONDAY, NOVEMBER 13, 2006 – 9:00

A. Call to Order and Habitat Committee (HC) Administrative Matters (15 minutes)

1. Introductions and Approval of Agenda Chair
2. Review of Council Actions/Directions Jennifer Gilden

E. Habitat Issues (9:15 A.M.)

1. Klamath Habitat Report Outline HC
2. Klamath Federal Energy Regulatory Commission Comment Letter and Relicensing Update Dave Hillemeier

B. Administrative Matters (11:15 A.M.)

1. Future Council Meeting Agenda Planning HC
2. Updated Research and Data Needs HC
6. Council Three-Meeting Outlook, Draft March 2007 Council Meeting Agenda, and Workload Priorities HC

LUNCH BREAK (12:00-1:15 P.M.)

E. Habitat Issues, continued

3. HC Member Updates HC
 - Hypoxic Zone Off Oregon Coast (Hal Weeks)
 - Port Orford Dredging Update (Hal Weeks)
 - Oil and Gas Lease Moratorium (Stuart Ellis)
 - U.S. Army Corps of Engineers permitting comments (Bryant Chesney)
 - Other Member Updates
4. Effects of Essential Fish Habitat Rules on Recreational Fisheries (2:15 P.M.) Sean White
5. Prepare Comments on Agenda Items B.1, B.2 and B.6, as necessary; begin Habitat Committee Report (2:45 P.M.) HC

PUBLIC COMMENT PERIOD (4:30 P.M.)

TUESDAY, NOVEMBER 14, 2006 – 8:30 A.M.

E. Habitat Issues, continued

6. Ecosystem Management Planning/Joint Meeting Preparation HC

H. Marine Protected Areas (10:30 A.M.)

1. Channel Islands National Marine Sanctuary Marine Protected Areas Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) Huff McGonigal

E. Habitat Issues, continued (11:00 A.M.)

7. Prepare Comments on Agenda Item H.1 (for Thursday afternoon); finalize Habitat Committee Report HC

ADJOURN (12:00 P.M.)

Reconvene with Scientific and Statistical Committee Ecosystem-based Management Subcommittee at 1:00 P.M.

PFMC
10/26/06

PROPOSED AGENDA

Scientific and Statistical Committee

Pacific Fishery Management Council
Hilton San Diego/Del Mar Hotel
Triple Crown Room
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 13-14, 2006

Scientific and Statistical Committee (SSC) meetings are open to the public and public comments will be accepted during the scheduled public comment period. Public comment at times other than the established public comment period will be taken at the discretion of the SSC chair.

MONDAY, NOVEMBER 13, 2006 - 8 A.M.

A. Call to Order and SSC Administrative Matters

1. Report of the Executive Director
2. Approve Agenda
3. Open Discussion

Don McIsaac

A suggestion for the amount of time each agenda item should take is provided. At the time the agenda is approved, priorities can be set and these times revised. Discussion leaders should determine whether more or less time is required and request the agenda be amended.

Committee member work assignments are noted in parentheses at the end of each agenda item. The first name listed is the discussion leader and the second, the rapporteur.

B. Council Administrative Matters

5. Appointments to At-Large SSC Positions, Advisory Bodies, Standing Committees, and Other Forums (Closed Session)
(9 a.m., 1.0 hour) Report to Council – 2:30 p.m. Monday - Closed Session

F. Coastal Pelagic Species Management

2. Stock Assessment Terms of Reference
(10 a.m., 0.5 hours; Barnes, Conser) Report to Council - Wednesday
1. Pacific Sardine Assessment and 2007 Harvest Guideline
(10:30 a.m., 1.5 hours; Jagielo, Punt) Report to Council - Wednesday

Kevin Hill

MONDAY, NOVEMBER 13, 2006 (continued)

LUNCH

D. Groundfish Management

3. Groundfish Stock Assessments
(1 p.m., 1.5 hours; Ralston, Jagielo) *Report to Council - Wednesday*

B. Council Administrative Matters, continued

2. Research and Data Needs
(2:30 p.m., 1 hours; Thomson, Dalton) *Report to Council - Thursday*

A. SSC Administrative Matters, continued

4. Off-Year Science Workshop Planning
 1. B₀ Workshop
(3:30 p.m., 0.5 hours; Dorn, Punt) *No Report to Council*

Martin Dorn

<p>PUBLIC COMMENT PERIOD Public comments, including issues <u>not</u> on the agenda, are accepted at this time.</p>
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A. SSC Administrative Matters, continued

5. Review Statements
(Following public comment period)

TUESDAY, NOVEMBER 14, 2006 - 8 A.M.

A. SSC Administrative Matters, continued

6. Review Statements
(8 a.m., 1 hour)

I. Salmon Management

2. Salmon Methodology Review
(9:00 a.m., 1.5 hours; Radtke, Hamel) *Report to Council - Friday*
3. FMP Amendment 15 (*de minimis* fisheries)
(10:30 a.m., 1.5 hours; Lawson, Sampson) *Report to Council - Friday*

LUNCH

TUESDAY, NOVEMBER 14, 2006 - (continued).

A. *SSC Administrative Matters, continued*

7. Ecosystem Based Fishery Management Discussion
Joint Session with a Subcommittee of the Habitat Committee
(1 p.m., 3 hours; Berkeley, Dorn) *Report to Council – Friday*
8. Review Statements
(4 p.m., 1 hour)

ADJOURN

PFMC
10/24/06

PROPOSED AGENDA
Enforcement Consultants

Pacific Fishery Management Council
Equestrian Room
Hilton San Diego/Del Mar Hotel
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 13-17, 2006

MONDAY, NOVEMBER 13, 2006 – 5:30 P.M.

A. Call to Order

1. Introductions
2. Review and Adopt Agenda

Tony Warrington

B. Council Agenda Items for Possible Comment

(There may or may not be enforcement issues associated with all of the following items. Items on the Council Agenda but not listed here may also be considered during the Enforcement Consultants meeting.)

B. Administrative Matters

B.6 Council Three-Meeting Outlook, Draft March 2007 Council Meeting Agenda, and Workload Priorities

C. Highly Migratory Species Management

C.2 Final Changes to Routine Management Measures

C.3 Exempted Fishing Permits (EFP)

D. Groundfish Management

D.4 Exempted Fishing Permits for 2007 Fisheries

D.5 Consideration of Inseason Adjustments

D.6 Shore-Based Whiting Monitoring Program

G. Pacific Halibut Management

G.1 Changes to Catch Sharing Plan and 2007 Annual Regulations

C. Other Topics

1. Items for Enforcement Corner of the Council Newsletter
2. Enforcement Presentations at Council Meetings

D. Public Comment

TUESDAY, NOVEMBER 14, 2006 THROUGH FRIDAY NOVEMBER 17, 2006 MEETING
CONTINUES AS NECESSARY.

ADJOURN

PFMC
10/26/06

PROPOSED AGENDA
Legislative Committee
Pacific Fishery Management Council
Hilton San Diego/Del Mar Hotel
Steeple Chase I-II
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 13, 2006

MONDAY, NOVEMBER 13, 2006 – 7:00 P.M.

A. *Call to Order*

Dave Hanson

1. Introductions
2. Approval of Agenda
3. Review of Materials

Mike Burner

B. *Update on Reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act*

C. *Review and Discussion of Council Staff Report, “A Catch Overage Deduction Mechanism As a Legislative Fix to Correct for Overfishing”*

D. *Other Business*

E. *Public Comment*

F. *Develop Report to Council*

ADJOURN

PFMC
10/23/06

PROPOSED AGENDA
Salmon Amendment Committee

Pacific Fishery Management Council
Steeple Chase I & II
Hilton San Diego/Del Mar Hotel
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 14-15, 2006

TUESDAY, NOVEMBER 14, 2006 - 1 P.M.*

A. Call to Order (8 a.m.)

1. Roll Call, Introductions, Announcements, etc. LB Boydstun
2. Approve Agenda SAC

I. Salmon Management

3. Fishery Management Plan Amendment 15 (*de minimis* fisheries)
(10:30 a.m. SSC Discussion Tuesday; 1 p.m. SAC discussion Wednesday;
11 a.m. Report to the Council on Friday)
 - a. Overview LB Boydstun
 - b. Updated/New Analyses
 - i. Stochastic Stock Recruitment Model Ray Beamesderfer
 - ii. Minimum effective spawning population Michael Mohr
 - iii. Hindcast Bootstrap Analysis LB Boydstun
 - iv. Port Dependence Cindy Thompson
 - c. Draft Report Editing/ SAC Comments LB Boydstun
 - d. Public hearings LB Boydstun/John Coon
 - e. Interpreting and Characterizing Results Chuck Tracy
 - i. Significance Determination
 - ii. Decision Context
 - f. Recommendations to Council SAC
 - i. Preferred Alternative/ Decision Process
 - ii. Other

A. SAC Administrative Matters

3. Draft and Review Statement

Other

ADJOURN

** Meeting continues, as necessary, on Wednesday from 8:00 A.M. to no later than 3:00 P.M. to complete the agenda.*

PFMC

10/26/06

PROPOSED AGENDA
**Joint Session of the Habitat Committee and the Ecosystem
Based Fishery Management Subcommittee of the Scientific
and Statistical Committee**

Pacific Fishery Management Council
Hilton San Diego/Del Mar Hotel
Salon F
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 14, 2006

This joint session is open to the public and public comments will be accepted during the scheduled public comment period. Public comment at times other than the established public comment period will be taken as time allows.

TUESDAY, NOVEMBER 14, 2006 – 1:00 P.M.

- A. *Call to Order, Introductions, and Approval of Agenda*** Teresa Scott/Steve Berkeley
- B. *Review of Meeting Purpose and Goals*** Mike Burner/Jennifer Gilden
- C. *Review of Ecosystem Based Fishery Management (EBFM) Approaches in
Other Regions and Regional Fishery Management Councils*** Hal Weeks
- D. *Presentation: “Ecosystem Based Fishery Management,
Some Practical Suggestions”*** Andre Punt/ Pete Lawson
- E. *Public Comment***
- F. *Group Discussion***
- Defining and Implementing EBFM
 - The Role of Science in EBFM
 - The Role of Economics in EBFM
 - Providing Helpful Advice to the Council
- G. *Next Steps, Tasks for Each Group, and Future Meeting Planning***
- H. *Discuss Reports to Council***

ADJOURN

PFMC
10/24/06

PROPOSED AGENDA
Salmon Advisory Subpanel

Pacific Fishery Management Council
Steeple Chase I & II
Hilton San Diego/Del Mar Hotel
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 16, 2006

THURSDAY, NOVEMBER 16, 2006 - 8 A.M.

A. Call to Order

(8 a.m.)

1. Roll Call, Introductions, Announcements, etc. Butch Smith, Acting Chair
2. Opening Remarks and Agenda Overview Chuck Tracy
3. Approve Agenda
4. Planning and Assignments for Statements

I. Salmon Management

3. Fishery Management Plan Amendment 15 (*de minimis* fisheries)
(10:30 a.m. SSC Discussion Tuesday; 1 p.m. SAC discussion Wednesday;
11 a.m. Report to the Council on Friday)
 - a. Overview LB Boydston
 - b. Interpreting and Characterizing Results Chuck Tracy
 - i. Significance Determination
 - ii. Decision Context
 - c. Recommendations to Council SAS
 - i. Preferred Alternative
 - ii. Other
1. Preseason Salmon Management Schedule for 2007
(8 a.m. Report to the Council on Friday)
 - a. KFMC/KRTAT functions Chuck Tracy
 - b. Hearing Locations
2. Salmon Methodology Review
(9 a.m. SSC Discussion on Tuesday; 8:30 a.m. Report to the Council on Friday)
 - a. FRAM Documentation
 - b. Columbia River Ocean Abundance Forecasts
 - c. GSI Study Proposal

**SPECIAL SESSION: CALIFORNIA CURRENT ECOSYSTEM RESEARCH
PRESENTATION**

2 P.M., STEEPLE CHASE I&II

The Northwest Fishery Science Center will give a presentation on the status of the Northern California Current ecosystem, and its relationship to salmon productivity.

B. Administrative Matters

2. Updated Research and Data Needs Chuck Tracy
(2:30 p.m. SSC discussion Monday; 4 p.m. Report to the Council on Thursday)

A. SAS Administrative Matters

5. Draft and Review Statements

Other

ADJOURN

PFMC

10/25/06

PROPOSED AGENDA
Salmon Technical Team

Pacific Fishery Management Council
Salon F

Hilton San Diego/Del Mar Hotel
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200

November 16, 2006

THURSDAY, NOVEMBER 16, 2006 - 8 A.M.

A. Call to Order

(8 a.m.)

1. Roll Call, Introductions, Announcements, etc. Allen Grover, Vice Chair
2. Opening Remarks and Agenda Overview Chuck Tracy
3. Approve Agenda
4. Planning and Assignments for Statements

I. Salmon Management

3. Fishery Management Plan Amendment 15 (*de minimis* fisheries) LB Boydston
(10:30 a.m. SSC Discussion Tuesday; 1 p.m. SAC discussion Wednesday
11 a.m. Report to the Council on Friday)
 - a. Updated/New Analyses STT
 - b. Interpreting and Characterizing Results Chuck Tracy
 - i. Significance Determination
 - ii. Decision Context
 - c. Recommendations to Council STT
 - i. Preferred Alternative
 - ii. Other
1. Preseason Salmon Management Schedule for 2007
(8 a.m. Report to the Council on Friday)
 - a. Klamath Fishery Management Council/Klamath River Technical Advisory Team
Functions Allen/Michael
2. Salmon Methodology Review (including GSI study proposal)
(9 a.m. SSC Discussion on Tuesday; 8:30 a.m. Report to the Council on Friday)
 - a. Fishery Regulation Assessment Model Documentation
 - b. Columbia River Ocean Abundance Forecasts
 - c. Genetic Stock Identification Study Proposal

B. Administrative Matters

2. Updated Research and Data Needs

Chuck Tracy

(2:30 p.m. SSC discussion Monday; 4 p.m. Report to the Council on Thursday)

**SPECIAL SESSION: CALIFORNIA CURRENT ECOSYSTEM RESEARCH
PRESENTATION**

2 P.M., STEEPLE CHASE I&II

The Northwest Fishery Science Center will give a presentation on the status of the Northern California Current ecosystem, and its relationship to salmon productivity.

A. STT Administrative Matters

5. Draft and Review Statements

Other

ADJOURN

PFMC

10/26/06

PROPOSED AGENDA
National Marine Sanctuary Roundtable Discussion

Pacific Fishery Management Council
Hilton San Diego/Del Mar Hotel
Steeple Chase I-II
15575 Jimmy Durante Blvd
Del Mar, California 92014
858-792-5200
November 13, 2006

MONDAY, NOVEMBER 13, 2006 – 8:30 A.M.

A. *Call to Order, Introduction, and Discussion Objectives* Steve Joner

B. *Sanctuary Research Supporting Management Needs (Case Examples)*

1. Identification of habitats sensitive to fishing in Cordell Bank National Marine Sanctuary.
2. Monterey Bay National Marine Sanctuary proposal for fishery regulations to prohibit fishing impacts at Davidson Seamount.
3. Monitoring effectiveness of reserves and adaptive management in the Channel Islands National Marine Sanctuary.
4. Deep sea coral research in the Olympic Coast National Marine Sanctuary.

C. *Facilitated Discussion on Research*

1. How can Pacific Council research needs be identified and addressed through sanctuary research activities?

D. *Role of Sanctuary Advisory Councils in Developing Specific Management Proposals, Including Those Brought to the Pacific Fishery Management Council (Pacific Council)*

1. Public involvement in Gulf of the Farallones Management Plan Review process.

E. *Facilitated Discussion on Future Coordination*

Steve Joner

1. How do we work together in the future, using the case example of the upcoming Olympic Coast National Marine Sanctuary Management Plan Review?
2. How do we better connect the work of the Pacific Council and the National Marine Sanctuary Program?

ADJOURN

Roundtable Discussion Participants

National Marine Sanctuary Program and Sanctuary Advisory Council Participants

National Marine Sanctuary Program (NMSP):

Mr. William Douros, Regional Director, NMSP West Coast Region

Olympic Coast National Marine Sanctuary:

Ms. Carol Bernthal, Superintendent, Olympic Coast National Marine Sanctuary

To Be Determined, Olympic Coast National Marine Sanctuary Advisory Council Representative

Cordell Bank National Marine Sanctuary:

Mr. Dan Howard, Superintendent, Cordell Bank National Marine Sanctuary

Mr. Tom Lambert, Chair, Cordell Bank National Marine Sanctuary Advisory Council

Gulf of the Farallones National Marine Sanctuary:

Ms. Irina Kogan, Resource Protection Specialist, Gulf of the Farallones National Marine Sanctuary

Mr. Richard Charter, Conservation Seat, Gulf of the Farallones National Marine Sanctuary Advisory Council

Monterrey Bay National Marine Sanctuary:

Mr. Huff McGonigal, Resource Protection Specialist, Monterey Bay National Marine Sanctuary

Ms. Deborah Streeter, Chair, Monterey Bay National Marine Sanctuary Advisory Council

Channel Islands National Marine Sanctuary:

Mr. Chris Mobley, Superintendent, Channel Island National Marine Sanctuary

Ms. Dianne Black, Chair, Channel Island National Marine Sanctuary Advisory Council

Pacific Fishery Management Council Participants

Pacific Fishery Management Council:

Mr. Donald Hansen, Chairman, Pacific Council, Dana Wharf Sportfishing

Dr. Donald McIsaac, Executive Director, Pacific Fishery Management Council

Ms. Kathy Fosmark, California Obligatory Seat, F/V Seadler

Mr. Dale Myer, At-Large Seat, Pacific Council, Artic Storm, Inc.

Mr. David Sones, Tribal Obligatory Seat, Pacific Council, Makah Tribal Council

Mr. Frank Warrens, Oregon Obligatory Seat, Pacific Council, Frank Warrens Automotive and Marine Services, Inc.

National Marine Fisheries Service Participants

Southwest Fisheries Science Center

Dr. Roger Hewitt, Director, Fisheries Resource Division, Southwest Fisheries Science Center

Northwest Fisheries Science Center

To Be Determined

PFMC

10/27/06

West Coast National Marine Sanctuary Advisory Council Roster

National Marine Sanctuary Program West Coast Region Sanctuary Advisory Councils

Olympic Coast National Marine Sanctuary Advisory Council

Officers

Chair

Member: Dr. Terrie Klinger

Vice-Chair

Member: Bob Bohlman

Secretary

Representative: Martha Hurd

Other Non-Governmental Members

Seat: Conservation / Environmental

Member: Bill Arntz

Alternate: Fan Tsao

Seat: Commercial Fishing

Member: Geoff Grillo

Alternate: Doug Fricke

Seat: Citizen-at-Large

Member: Bob Morse

Alternate: Alan Brooks

Seat: Chamber of Commerce/Tourism/ Recreation

Member: Diane Schostak

Alternate: Michael Lenox

Seat: Education

Member: Gene Woodwick

Alternate: Ellen Matheny

Seat: Research

Member: Dr. Terrie Klinger

Alternate: John Calambokidis

Seat: Marine Business/Ports/Industry

Member: Bob Bohlman

Alternate: Frank Holmes

Olympic Coast National Marine Sanctuary Advisory Council, *continued*

Other Governmental Members

Local Government:

Agency: Counties (Rotational Seat)

Representative: Mike Doherty

Alternate: Phil Johnson

Alternate: Al Carter

State Government:

Agency: Washington Department of Ecology

Representative: Norm Davis

Alternate: Rebecca Post

Agency: Washington Department of Fish and Wildlife

Representative: Teresa Scott

Alternate: Mary Lou Mills

Agency: Washington Department of Natural Resources

Representative: Martha Hurd

Alternate: David Roberts

Tribal Government:

Tribe: Hoh Tribe

Representative: David Hudson

Alternate: Tim Snowden

Tribe: Makah Tribe

Representative: Steve Joner

Alternate: Jim Woods

Tribe: Quileute Tribe

Representative: Mel Moon

Alternate: Jay Burns

Tribe: Quinault Nation

Representative: Ed Johnstone

Alternate: Joe Schumacker

Federal Government:

Agency: NOAA Fisheries (non-voting)

Representative: Janet Sears

Agency: U.S. Department of Homeland Security (non-voting)

U.S. Coast Guard

Representative: Capt. Mark D'Andrea

Alternate: LTJG Scot Druckrey

Agency: U.S. Department of Interior (non-voting)
Olympic National Park
Representative: Bill Laitner
Alternate: Cat Hawkins-Hoffman

Agency: U.S. Fish and Wildlife Service (non-voting)
Representative: Kevin Ryan
Alternate: Annetee deKnijf

Agency: U.S. Navy
Representative: Hayden Street
Alternate: John Miller

Agency: Northwest Straits Commission
Representative: Lou Moore
Alternate: vacant – to be determined

Cordell Bank National Marine Sanctuary Advisory Council

Officers

Chair

Member: Tom Lambert

Vice Chair

Member: Doreen Moser

Other Non-Governmental Members

Seat: Research

Member: Carol Keiper

Alternate: Daniel Cohen

Seat: Conservation

Member: Lance Morgan

Alternate: Todd Steiner

Seat: Education

Member: Doreen Moser

Alternate: Duffy Ross

Seat: Community-At-Large – Marin

Member: Joe Smith

Alternate: Michael Mery

Seat: Community At Large – Sonoma

Member: Tom Lambert

Alternate: vacant – to be determined

Cordell Bank National Marine Sanctuary Advisory Council, *continued*

Seat: Maritime Activity
Member: Chuck Wise
Alternate: Josh Churchman

Other Governmental Members

Federal Government:

Agency: NOAA Fisheries (non-voting)
Southwest Region – Santa Rosa Office
Representative: Steve Edmondson

Agency: NOAA (non-voting)
Channel Islands NMS
Representative: Chris Mobley

Agency: NOAA (non-voting)
Gulf of the Farallones NMS
Representative: Maria Brown

Agency: NOAA (non-voting)
Monterey Bay NMS
Representative: Holly Price / Karen Grimmer

Agency: U.S. Coast Guard
Representative: MCPO James Clemens

Gulf of the Farallones National Marine Sanctuary Advisory Council

Officers

Chair

Member: Barbara Emley

Vice-Chair

Member: Bob Breen

Secretary

Member: Bob Wilson

Other Non-governmental Members

Seat: Conservation
Member: Richard Charter
Alternate: vacant – to be determined

Seat: Conservation
Member: Bob Wilson
Alternate: vacant – to be determined

Gulf of the Farallones National Marine Sanctuary Advisory Council, *continued*

Seat: Maritime Activities

Member: Barbara Emley

Alternate: Peter Grenell

Seat: Maritime Activities

Member: Mick Menigoz

Alternate: vacant – to be determined

Seat: Public-at-Large

Member: Mark Dowie

Alternate: vacant – to be determined

Seat: Research

Member: James Kelley

Alternate: Brenda Donald

Seat: Education

Member: Bob Breen

Alternate: vacant – to be determined

Other Governmental Members

State Government

Agency: California Resources Agency

Representative: Brian Baird

Alternate: Leah Atkins

Federal Government

Agency: National Park Service

Representative: Brian O'Neill

Alternate: Chris Powell

Agency: NOAA (non-voting)

Cordell Bank NMS

Representative: Dan Howard

Agency: NOAA (non-voting)

Monterey Bay NMS

Representative: Holly Price/ Karen Grimmer

Alternate: Chris Coburn

Agency: United States Coast Guard

Representative: Captain David Swatland

Monterey Bay National Marine Sanctuary Advisory Council

Officers

Chair

Member: Deborah Streeter
Alternate: Harriett Mitteldorf

Vice Chair

Member: Tom Canale
Alternate: David Crabbe

Secretary

Member: Kaitilin Gaffney
Alternate: Steve Shimek

Other Non-Governmental Members

Seat: Tourism

Member: Michael Bekker
Alternate: Kris Reyes

Seat: Business/Industry

Member: Nancy Black
Alternate: Anjanette Adams

Seat: Diving

Member: Frank Degnan
Alternate: Randy Herz

Seat: Recreational Fishing

Member: Howard Egan
Alternate: Joseph Stoops

Seat: Commercial Fishing

Member: Tom Canale
Alternate: David Crabbe

Seat: Conservation

Member: Kaitilin Gaffney
Alternate: Steve Shimek

Seat: Citizen-at-Large

Member: Deborah Streeter
Alternate: Harriett Mitteldorf

Seat: Citizen-at-Large

Member: Mike Laffen
Alternate: Cynthia Walter

Monterey Bay National Marine Sanctuary Advisory Council, *continued*

Seat: Citizen-at-Large
Member: Margaret Webb
Alternate: Robert Frischmuth

Seat: Recreation
Member: Dan Haifley
Alternate: Gary Pezzi

Seat: Research
Member: Christopher Harrold
Alternate: Steve Moore

Seat: Agriculture
Member: Kirk Schmidt
Alternate: Tim Frahm

Seat: Education
Member: Tracey Weiss
Alternate: Steve Clark

Other Governmental Members

Local and Regional Government:

Agency: Association of Monterey Bay Area Governments
Representative: Stephanie Harlan
Alternate: Ms. Libby Downey

Agency: Harbors
Representative: Steve Scheiblauber
Alternative: Linda G. McIntyre

State Government:

Agency: California Coastal Commission
Representative: Ms. Tami Grove
Alternate: Charles Lester

Agency: California Department of Fish and Game
Representative: Paul N. Reilly
Alternate: John Ugoretz

Agency: California Environmental Protection Agency
Representative: Russ Jeffries
Alternate: John Robertson

Agency: California Resources Agency
Representative: Brian Baird
Alternate: Leah Akins

Monterey Bay National Marine Sanctuary Advisory Council, *continued*

Agency: California State Parks
Representative: David Vincent
Alternate: Phil Jenkins

Federal Government:

Agency: NOAA (non-voting)
Channel Islands NMS
Representative: Chris Mobley
Alternate: Michael Murray

Agency: NOAA (non-voting)
Cordell Bank NMS
Representative: Dan Howard

Agency: NOAA (non-voting)
Elkhorn Slough National Estuarine Research Reserve
Representative: Becky Christensen

Agency: NOAA (non-voting)
Gulf of The Farallones NMS
Representative: Maria Brown
Alternate: Brian Johnson

Agency: NOAA (non-voting)
Monterey Bay NMS
Representative: Holly Price / Karen Grimmer

Agency: U.S. Coast Guard
Representative: LTJG Jacob Gustafson
Alternate: LT Marc Warren

Channel Islands National Marine Sanctuary Advisory Council

Officers

Chair

Member: Dianne Black
Alternate: Michelle Gibbs

Vice-Chair

Member: Linda Krop
Alternate: Greg Helms

Secretary

Member: Eric Kett
Alternate: Matthew Lum

Channel Islands National Marine Sanctuary Advisory Council, *continued*

Other Non-Governmental Members

Seat: Recreational Fishing
Member: David Bacon
Alternate: Merit McCrea

Seat: Tourism
Member: Lauri Baker
Alternate: Andrea Moe

Seat: Chumash Community
Member: Paulette Cabugos
Alternate: Reggie Pagaling

Seat: Non-Consumptive Recreation
Member: Warren Glaser
Alternate: Scott Dunn

Seat: Education
Member: Barbara LaCorte
Alternate: Dan Powell

Seat: Business
Member: William Spicer
Alternate: vacant – to be determined

Seat: Research
Member: Dr. Robert Warner
Alternate: Dr. Dan Brumbaugh

Seat: Commercial Fishing
Member: vacant – to be determined
Alternate: Jim Marshall

Seat: Public At-Large
Member: Eric Kett
Alternate: Matthew Lum

Seat: Public-at-Large
Member: vacant – to be determined
Alternate: Phyllis Grifman

Seat: Conservation
Member: Linda Krop
Alternate: Greg Helms

Channel Islands National Marine Sanctuary Advisory Council, *continued*

Other Governmental Members

Local Government:

Agency: Ventura County

Representative: Lyn Krieger

Alternate: Jack Peveler

State Government:

Agency: California Coastal Commission

Representative: Rebecca Roth

Alternate: Jack Ainsworth

Agency: California Department of Fish and Game

Representative: Marija Vojkovich

Alternate: Kristine Barsky

Agency: California Resources Agency

Representative: Brian Baird

Alternate: Leah Akins

Federal Government:

Agency: Minerals Management Service

Representative: Dr. Fred Piltz

Alternate: Dr. Ann Bull

Agency: National Park Service

Representative: Russell Galipeau

Alternate: Gary Davis

Agency: NOAA Fisheries

Representative: Mark Helvey

Alternate: Lyle Enriquez

Agency: NOAA (non-voting)

Gulf of the Farallones NMS

Representative: Maria Brown

Alternate: vacant – to be determined

Agency: NOAA (non-voting)

Monterey Bay NMS

Representative: Holly Price / Karen Grimmer

Alternate: Rachel Saunders

Agency: U.S. Coast Guard

Representative: Ronald Fien

Alternate: Chief John Luzader

Agency: U.S. Department of Defense

Representative: Steven Schwartz

Alternate: Walter Schobel

LOW ECOSYSTEM PRODUCTIVITY OFF THE U.S. WEST COAST DURING 2006

This report summarizes the most recent observations of oceanographic and biological conditions in coastal waters off the U. S. west coast during 2006. A more complete analysis, which will include additional results from ongoing and near-future surveys, is underway. However, scientists, managers, and the media are quite interested in the unusually poor productivity of the California Current ecosystem (CCE) this year, particularly in the context of similar anomalous conditions of 2005 and the associated reproductive failure of a number of fish and sea bird species.

Groundfish and other West Coast Fisheries

The SWFSC and PWCC/NWFSC completed a coastwide midwater trawl survey of young-of-the-year (YOY) groundfish that lasted 45 days and surveyed the entire west coast from San Diego CA to Cape Alava WA. This is the sixth consecutive year that a large-scale pre-recruit survey has been completed. Sampling during the survey, which was conducted by the R/V David Starr Jordan and the F/V Excalibur, was designed to measure the reproductive success and year-class strength of winter-spawning species of rockfish (*Sebastes spp.*), including bocaccio, widow, chilipepper, shortbelly, and canary rockfish. The 2006 survey encountered very low catches of YOY rockfishes and other groundfish (e.g., Pacific whiting and sanddabs), similar to results obtained in 2005. Although the abundance of YOY rockfish in recent surveys has been very low, the relationship of those observations to future recruitments of groundfish stocks is a topic of active research. A Pre-Recruit Survey Workshop was held in September at the SWFSC Santa Cruz facility to further explore this issue.

In addition, the survey monitors interannual variability in the distribution and abundance of the epipelagic micronekton community (e.g., krill, squid, sardines, anchovies, and lanternfishes). An assemblage analysis of those data indicates that off central California the community is shifted to a more southerly/offshore set of species. Likewise, ichthyoplankton data indicate reduced (or perhaps delayed) spawning of several species (e.g., Pacific sardine and northern anchovy). Catches of market squid (*Loligo opalescens*) were also much lower than normal. Lastly, reproduction of some sea bird species in the Gulf of the Farallones, off San Francisco, is very poor. Together these observations suggest a large-scale failure in production in the CCE during the upwelling season in 2005 and 2006.

(Stephen Ralston, POC)

Oceanographic Background

Coastal upwelling is the most important process for providing nutrient-rich water to surface waters in the CCE. Typically, the onset of sustained upwelling in April-May initiates the spring bloom and stimulates biological productivity. Through July 2006, coastal upwelling has been unseasonably weak off California. Coastal sea surface temperatures have been 1-4°C above normal during spring and summer, an indication of weak upwelling and low nutrient availability in surface waters. This pattern is similar to 2005, when the onset of sustained upwelling off northern California, Oregon, and Washington was delayed by several weeks and upwelling was generally weak during most of the summer. This has been implicated in the overall poor biological production of the ecosystem in 2005. Upwelling has been generally strong off Oregon and Washington in 2006, although very weak in May and June. The warm conditions in the CCE

have occurred during a weak La Niña period in the equatorial Pacific; thus El Niño is not the source of the present state of the ecosystem. The moderate El Niño forecast for early 2007 may magnify the existing low productive state of the system.

The response of several populations at multiple trophic levels to the delayed upwelling in 2005 and 2006 clearly demonstrates that the entire ecosystem reacts to climate variability. The unusual conditions in the CCE show the need for information and assessments that consider an ecosystem basis to resource management. An integrated ecosystem assessment (IEA) that determines and characterizes the status of the physical environment marine populations would be a valuable management tool for FMCs and many other stakeholders. Efforts are underway to develop dynamic, web-based IEAs that would provide a current ecosystem status, complete with quantified uncertainties and risk assessments for specific decisions, and help scientists and managers better understand and cope with the impacts of environmental variability like that seen in 2006.

(Frank Schwing, POC)